



# Micron Technology, Inc.

## 2014 Winter Analyst Conference

# Safe Harbor

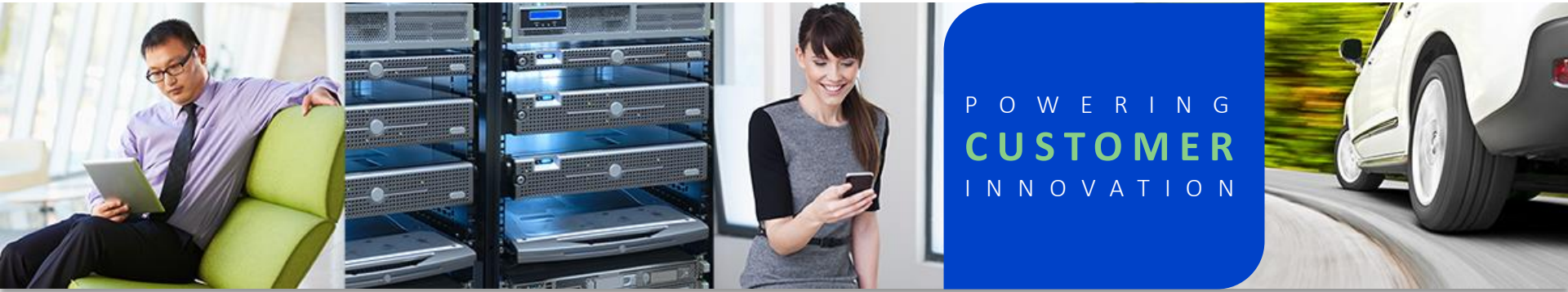
During the course of this meeting, we may make projections or other forward-looking statements regarding future events or the future financial performance of the Company and the industry. We wish to caution you that such statements are predictions and that actual events or results may differ materially. We refer you to the documents the Company files on a consolidated basis from time to time with Securities and Exchange Commission, specifically the Company's most recent Form 10-K and Form 10-Q. These documents contain and identify important factors that could cause the actual results for the Company on a consolidated basis to differ materially from those contained in our projections or forward-looking statements. These certain factors can be found at <http://investors.micron.com/riskFactors.cfm>. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. We are under no duty to update any of the forward-looking statements after the date of the presentation to conform these statements to actual results.



**Mark Durcan**

CEO

# Presentation Overview



- Memory Industry Today and Micron Strategy
- Financial
- Business and Operations
- Technology
- Markets
- Summary

# 2013: A Productive Year

Inotera JV restructure –  
Micron gains rights to  
100% of Inotera's  
output

**inotera**  
memories™

LFoundry  
acquires  
MIT/Fab 9

LFoundry 

Elpida &  
Rexchip are  
now Micron

**ELPIDA**  
 **Rexchip**

Shipped first  
commercial  
Hybrid Memory  
Cube samples

**HMC**

Closed on Intel  
agreement for  
Fab 12

**intel**

Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

Sep

Oct

Nov

Dec

**ST**

R2 Consortium  
transition and  
new agreement  
with ST Micro



MLC/PCIe  
Enterprise SSD  
introduced

 **Rexchip**

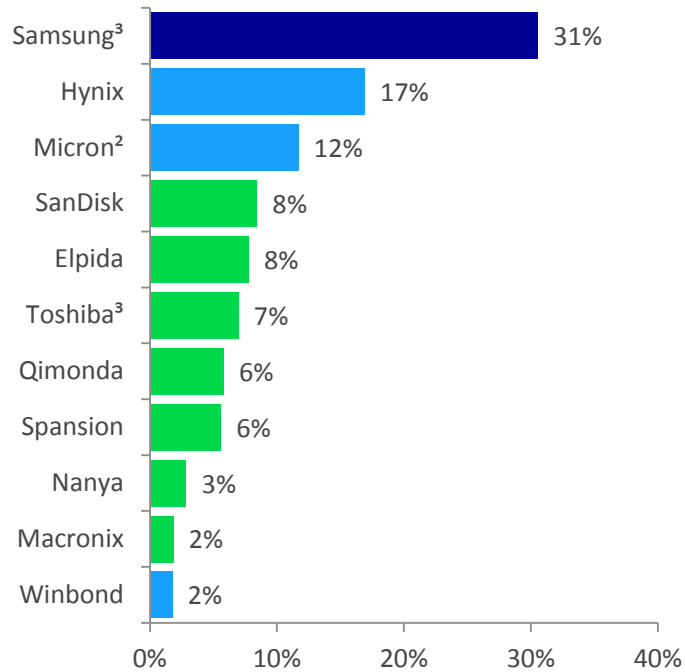
Rexchip name  
change to Micron  
Memory Taiwan  
(MMT)

**35**  
YEARS

Micron celebrates  
35 year history

# Memory Industry: FY 2008 vs. Today

**FY2008 Memory Revenue (% of Group Total)<sup>1</sup>**



**Top Five Market Share: 75%**

Source: Micron

Micron data is from FY 2008; Competitor data is from CQ4-07 – CQ3-08.

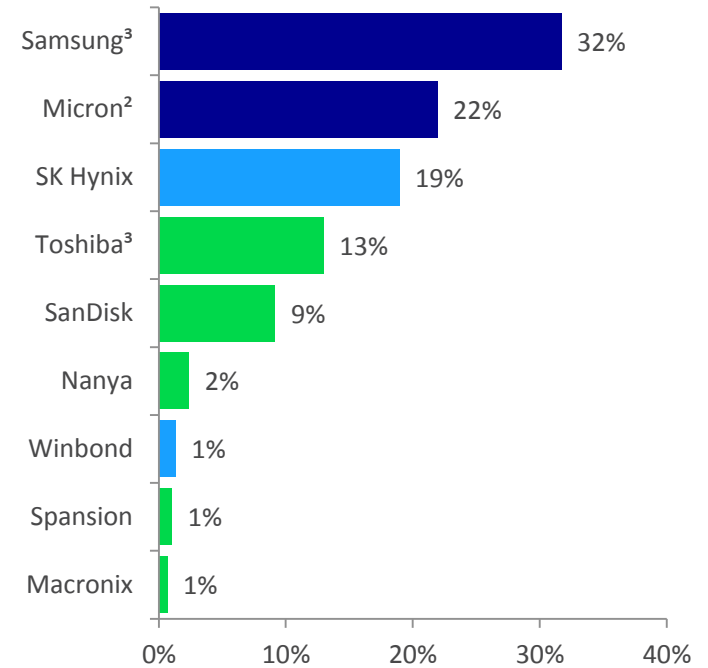
1. Group total defined as only those companies listed on this page, although others may also exist.

Micron data is fiscal, competitor data is calendar. Percentages vary due to rounding.

2. Micron Includes NAND sold to Intel from IM Flash.

3. Samsung and Toshiba include total memory revenue as reported.

**LTM Memory Revenue (% of Group Total)<sup>1</sup>**



**Top Five Market Share: 95%**

Source: Micron

Micron data is FQ2-13 – FQ1-14; Competitor data from CQ1-13 – CQ4-13 except for Toshiba, Macronix, and Spansion (CQ4-13 not yet available).

1. Group total defined as only those companies listed on this page, although others may also exist.

2. Micron Includes NAND sold to Intel from IM Flash; Elpida revenue prior to merger also included (Dec. 2012 - Jul. 2013).

3. Samsung and Toshiba include total memory revenue as reported.

# Five Big Technology Trends

**NETWORKING**



**MACHINE  
TO  
MACHINE**



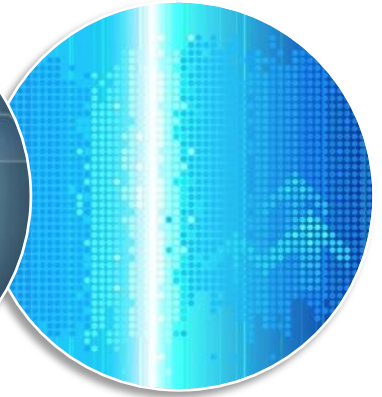
**MOBILE**



**CLOUD**



**BIG DATA**





# Customer Relationships Evolve to Strategic Partnerships

## Computing & Storage

IBM



Google™ *lenovo*



EMC<sup>2</sup>



## Networking



ZTE



## Mobile

NOKIA



## Consumer

SONY

Panasonic



## Automotive

DENSO

HARMAN

DELPHI



DAIMLER



## Enablers



ARM

QUALCOMM

## Operating Systems

Microsoft

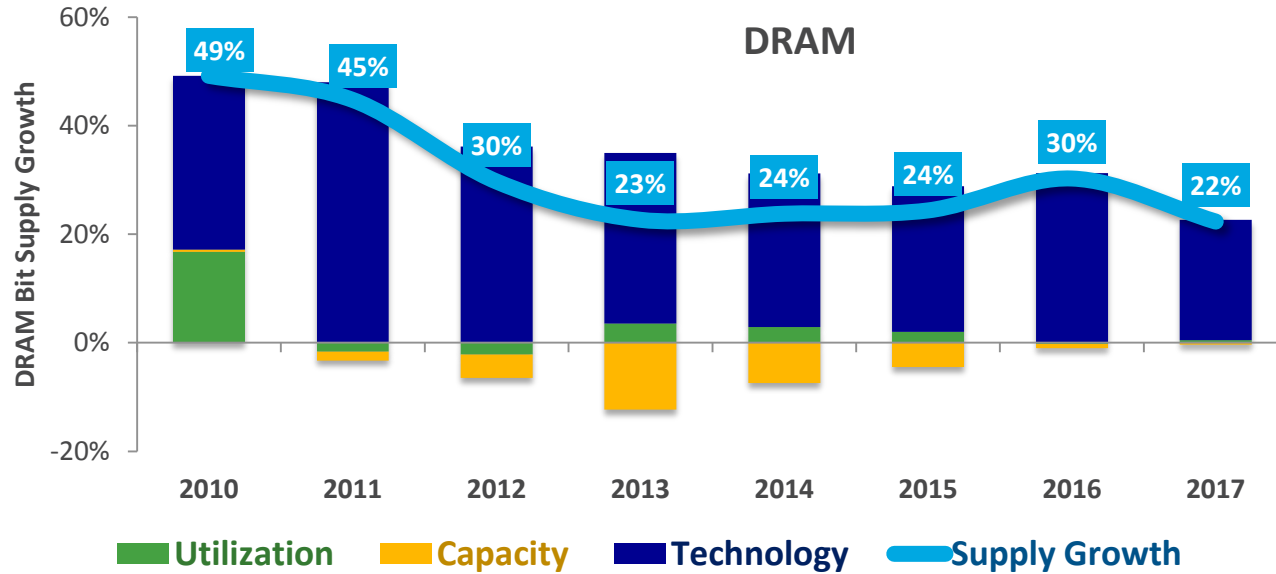
symbian  
OS



All logos are the property of the respective owners



# Industry Bit Supply Growth is Slowing



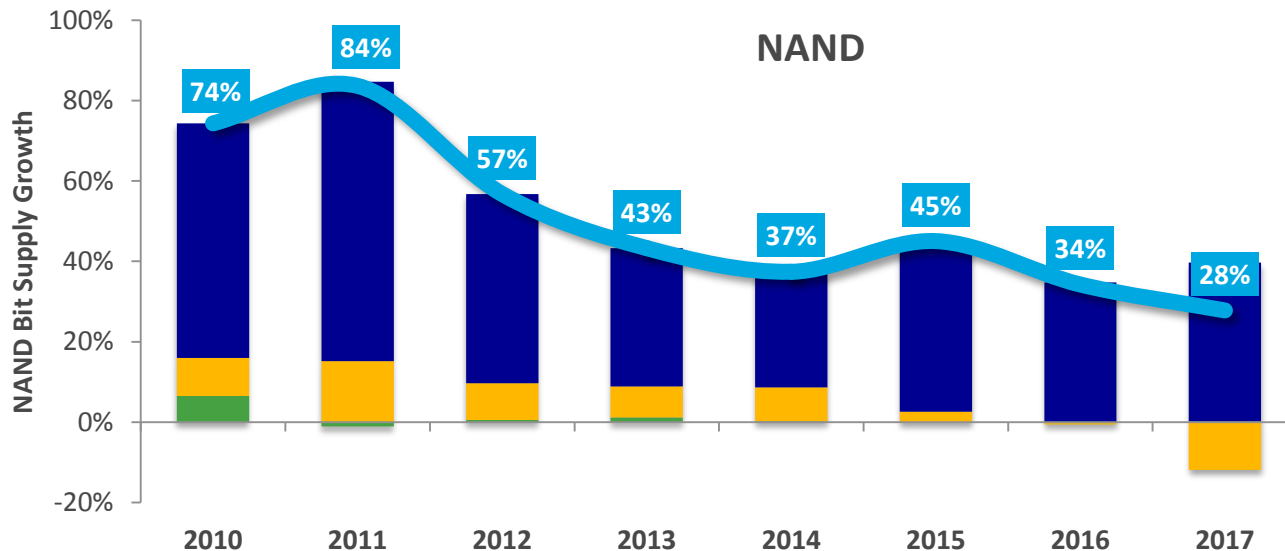
20nm DRAM



Hybrid Memory Cube

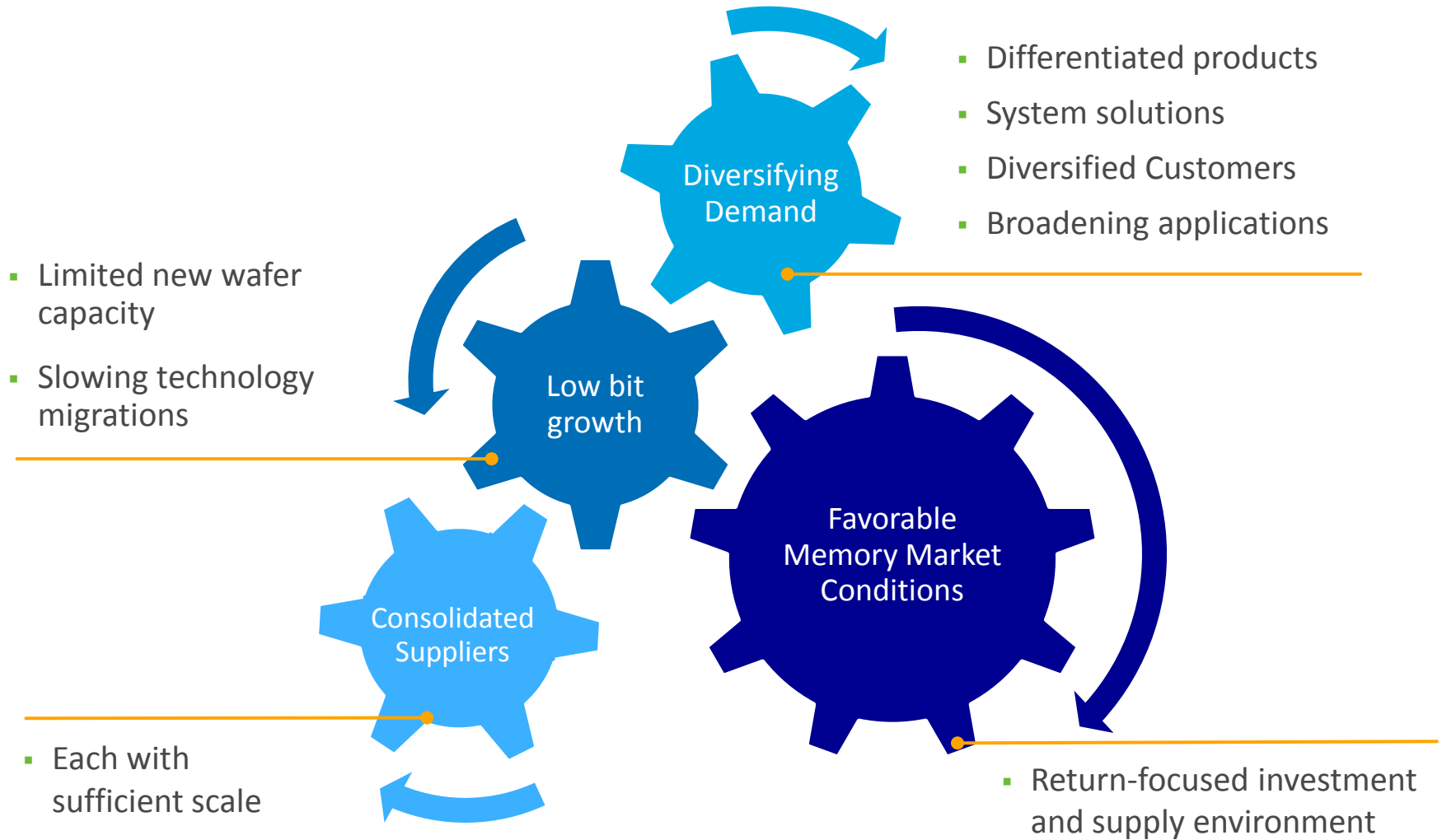


MLC/PCIe Enterprise SSD



Source: Micron and Industry Analysts

# Memory Market Conditions



Source: iSuppli, Gartner, and Micron internal estimates.

# Corporate Priorities


- Drive operational excellence
- Deliver differentiated and system-level products to diverse market segments
- Manage shareholder dilution while driving down debt

Maximize long-term shareholder returns



**Ron Foster**

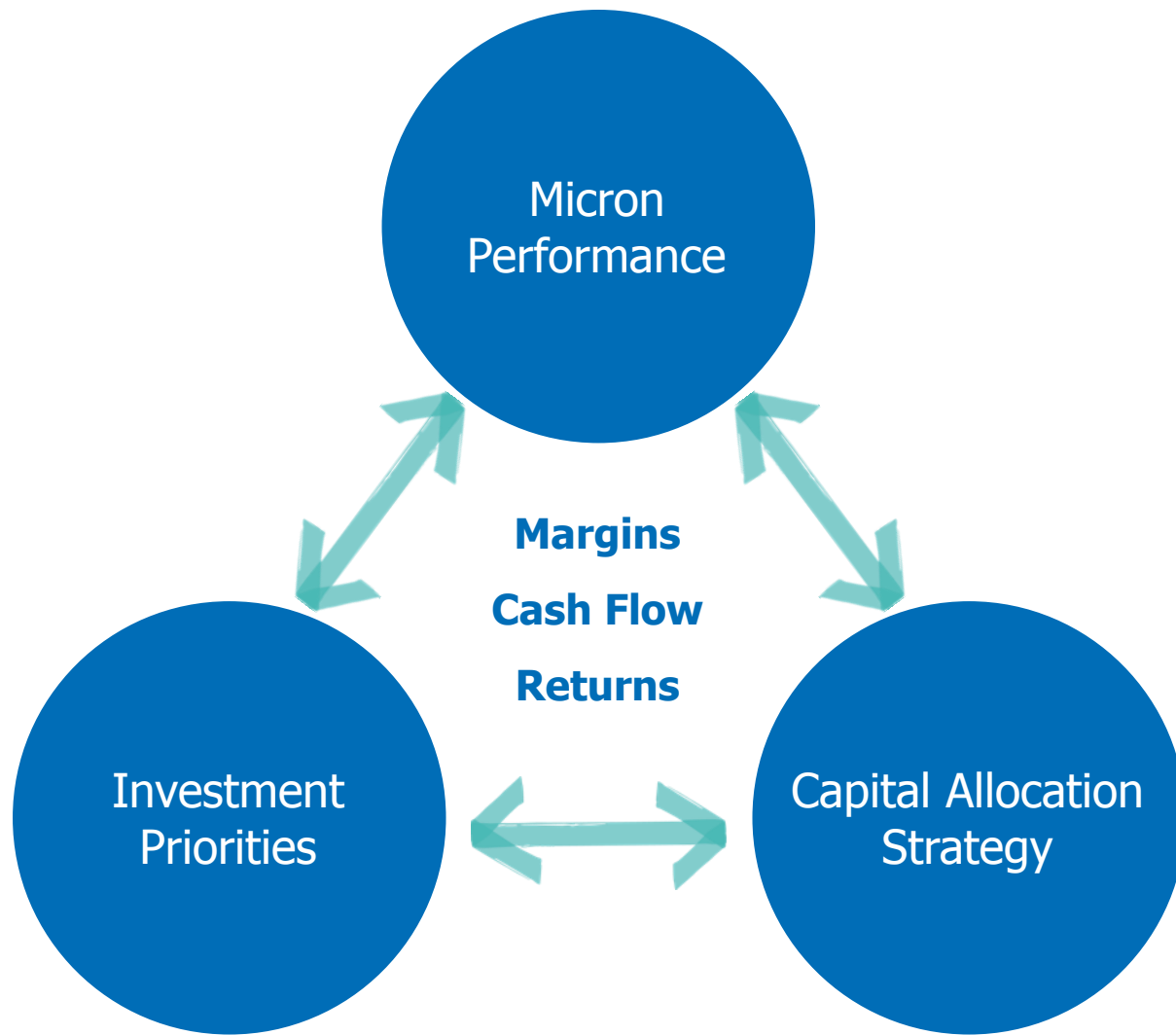
CFO



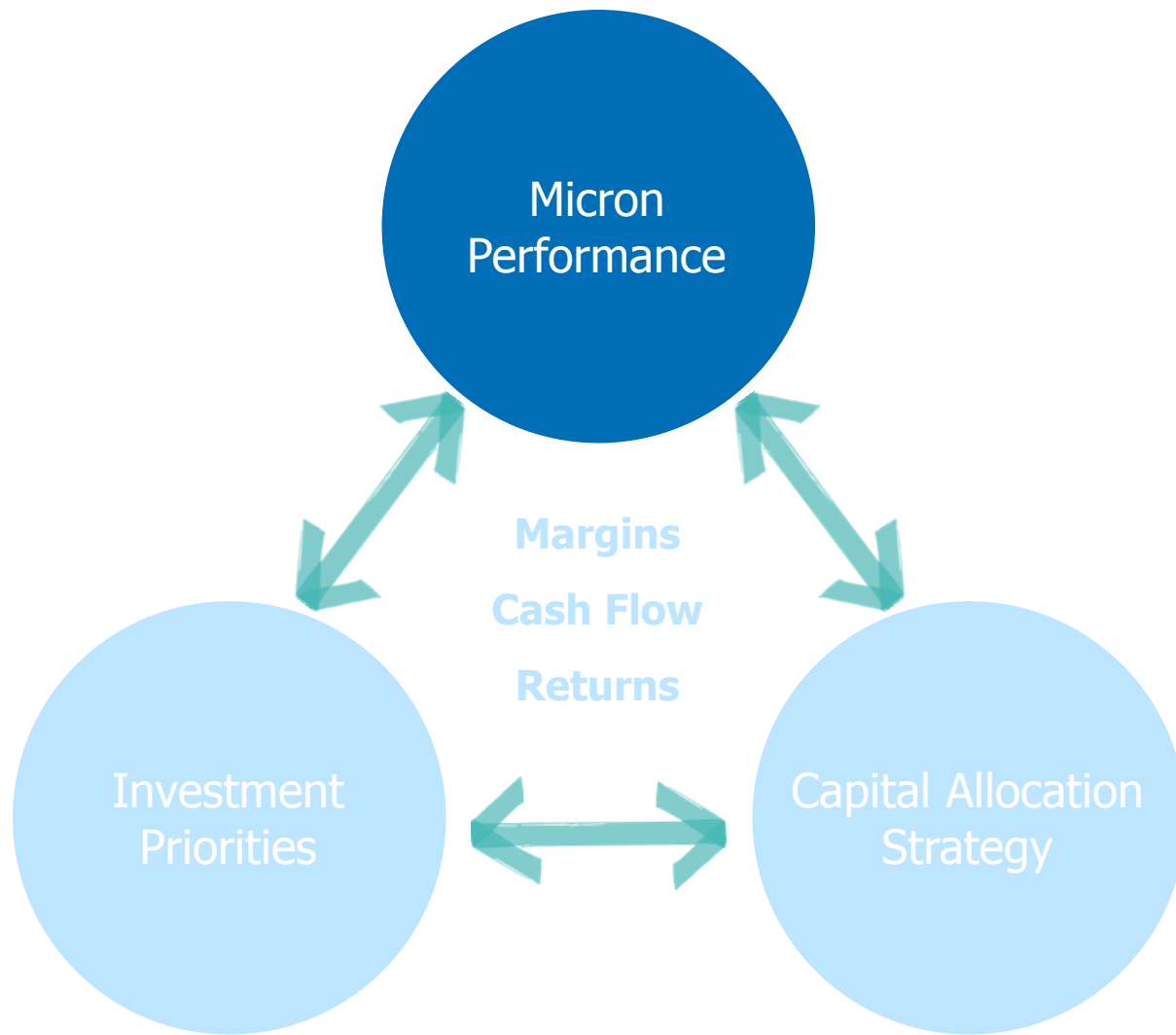
What metrics should we use to evaluate Micron's performance?

What are you focused on in terms of optimizing your business and operations?

How do you think about capital allocation?

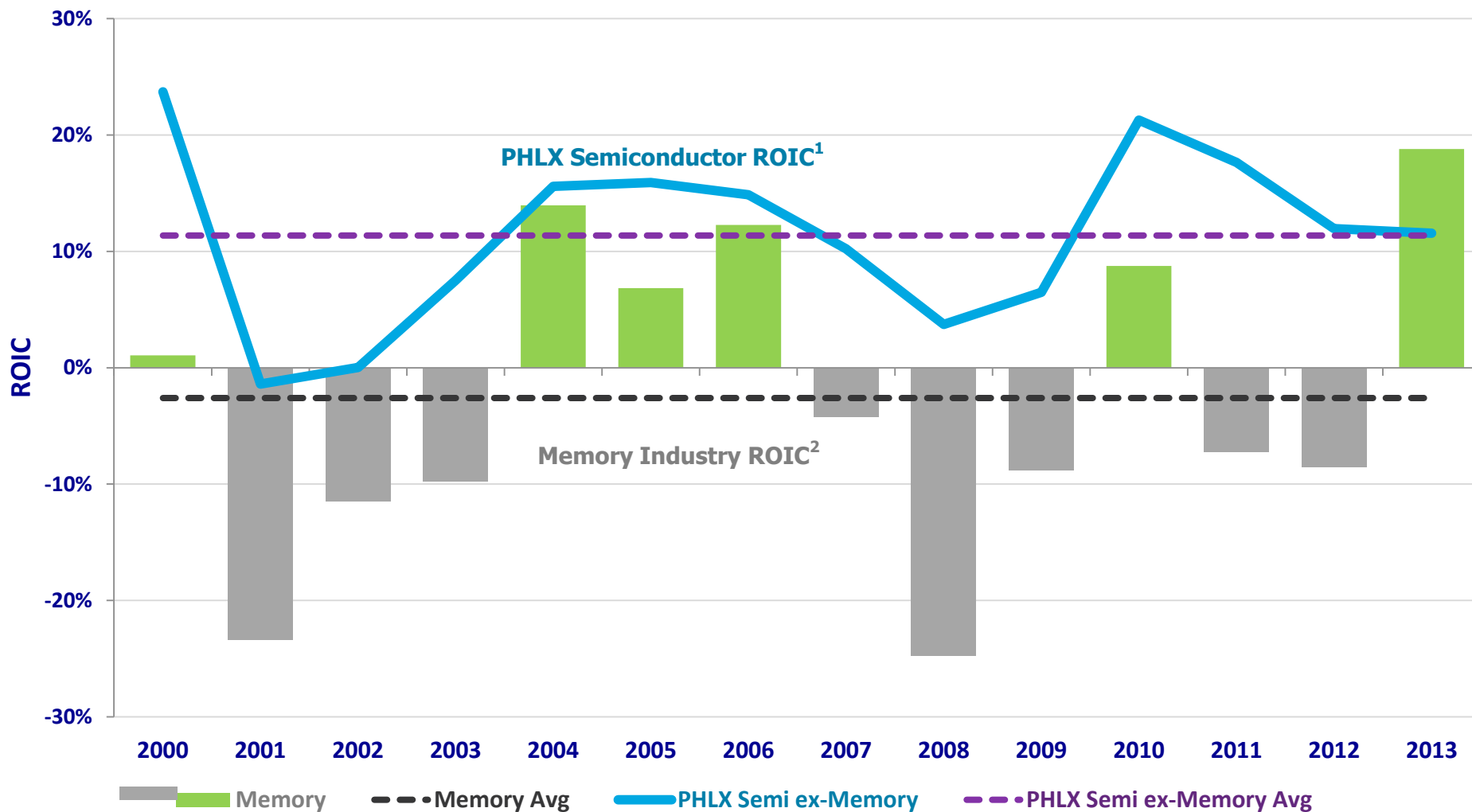






# Memory Industry ROIC

## Industry Dynamics Have Changed



Source: Micron, Capital IQ

<sup>1</sup>PHLX Semiconductor data excludes pure-play memory companies listed below

<sup>2</sup>Memory includes public data from pure-play memory companies only: Micron, SK Hynix, SanDisk, Elpida, Inotera, Nanya, Powerchip, ProMOS, Winbond, Qimonda

ROIC = Net Income / (Debt + Equity)

# Micron's Current Performance

## Strengths

- PP&E turns
  - Low fixed costs, high operating cash flows
- Tax structure
- Operating cash flow profile

## Improvement Opportunities

- Gross margin
- Inventory reduction

## Micron Performance

**FQ1-14**

Revenue	\$4,042
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**Key Metrics<sup>(1)(2)</sup>**

**Percent of Revenue**

<b>Gross Margin</b>	<b>32%</b>
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SG&A and R&D	12%
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Tax Expense	2%
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<b>Net Income (Non-GAAP )</b>	<b>22%</b>
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Asset Turns	1.14x
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<b>ROA</b>	<b>25.0%</b>
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<sup>(1)</sup> Gross Margin, SG&A, R&D, Tax Expense are based on GAAP figures

<sup>(2)</sup> ROA calculated using Non-GAAP Net Income and Total Assets adjusted for Non-controlling Interest in Assets and ST/LT Cash, Liquid Investments, and Restricted Cash

# Consolidated Statements of Operations

## Non-GAAP Disclosures

Amounts in millions, except per share amounts	FQ1 2014
GAAP net income attributable to Micron	\$ 358
Non-GAAP adjustments:	
Rambus settlement	233
Flow through of Elpida inventory step up	111
Loss on debt restructure	92
Gain on acquisition of Elpida	--
Gain on Inotera issuance of shares	--
Elpida acquisition costs	--
Restructure and asset impairments	(3)
Amortization of debt discount and other costs	50
(Gain) loss from changes in currency exchange rates	6
Estimated tax effects of above items	(39)
Non-cash taxes from Elpida purchase accounting	73
Total non-GAAP adjustments	523
Non-GAAP net income attributable to Micron	\$ 881
(a) The anti-dilutive effect of the capped calls is based on the average share price for the quarter.	

# Semiconductor Estimates and Valuation Metrics

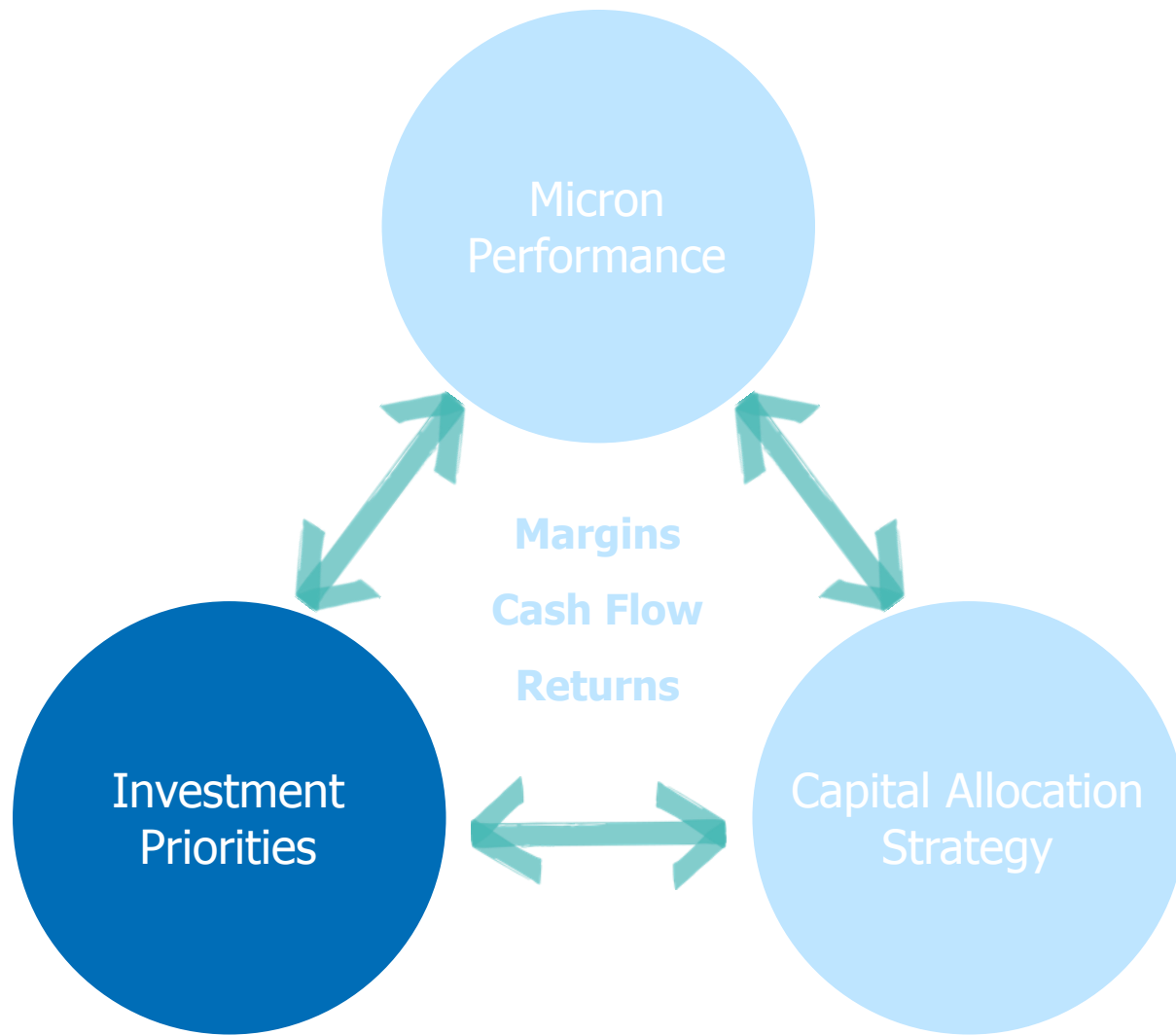
## Consensus Estimates

Market Cap		CY2014 Revenue		CY2014 Net Income	
\$122.6 B	Qualcomm	\$53.1 B	Intel	\$9.4 B	Intel
\$118.4 B	Intel	\$26.8 B	Qualcomm	\$8.7 B	Qualcomm
\$89.9 B	TSMC	\$22.5 B	TSMC	\$6.9 B	TSMC
\$44.8 B	TI	\$16.1 B	<b>Micron</b>	\$3.3 B	<b>SK Hynix</b>
\$24.4 B	<b>Micron</b>	\$14.8 B	<b>SK Hynix</b>	\$2.6 B	<b>Micron</b>
\$23.9 B	<b>SK Hynix</b>	\$12.6 B	TI	\$2.3 B	TI
\$20.2 B	AMAT	\$9.2 B	AMAT	\$1.5 B	Broadcom
\$20.0 B	ARM	\$8.5 B	Broadcom	\$1.3 B	AMAT
\$17.0 B	Broadcom	\$8.0 B	ST Micro	\$1.2 B	<b>SanDisk</b>
\$15.4 B	<b>SanDisk</b>	\$6.7 B	<b>SanDisk</b>	\$1.0 B	NXP
\$13.4 B	Avago	\$5.7 B	Infineon	\$0.7 B	Xilinx
\$12.1 B	Xilinx	\$5.2 B	NXP	\$0.6 B	Avago
\$11.8 B	NXP	\$4.5 B	Lam	\$0.6 B	KLA-Tencor
\$11.3 B	Infineon	\$4.3 B	NVIDIA	\$0.6 B	Lam
\$10.3 B	Altera	\$3.0 B	KLA-Tencor	\$0.6 B	Infineon
\$10.0 B	KLA-Tencor	\$2.9 B	Avago	\$0.6 B	ARM
\$8.9 B	NVIDIA	\$2.6 B	Xilinx	\$0.5 B	Nanya
\$8.3 B	Maxim	\$2.4 B	Maxim	\$0.5 B	Altera
\$8.0 B	Lam	\$2.1 B	Nanya	\$0.4 B	NVIDIA
\$7.4 B	ST Micro	\$1.9 B	Altera	\$0.4 B	Maxim
\$4.0 B	Nanya	\$1.3 B	Spansion	\$0.2 B	ST Micro
\$0.8 B	Spansion	\$1.3 B	ARM	\$0.0 B	Spansion

## Valuation

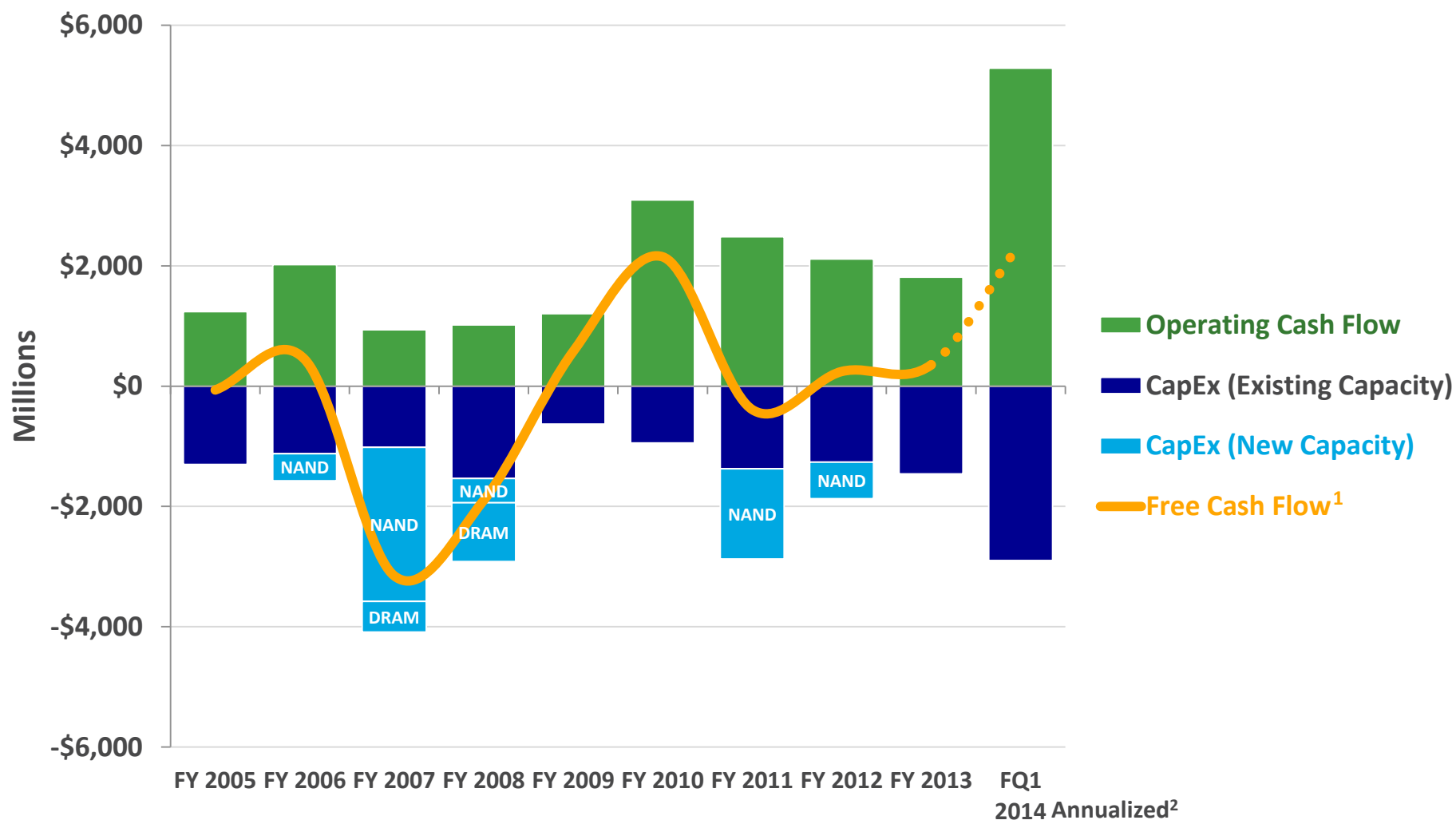
CY 2014 EV/EBITDA		CY 2014 EV/Revenue		CY 2014 P/E	
28.4x	ARM	14.5x	ARM	39.4x	ST Micro
12.7x	Altera	4.2x	Avago	36.1x	ARM
11.6x	Xilinx	4.1x	Altera	22.4x	Altera
11.5x	Avago	4.1x	Xilinx	22.2x	NVIDIA
10.3x	Maxim	4.0x	TSMC	19.6x	TI
10.3x	TI	3.9x	Qualcomm	18.8x	Xilinx
10.2x	Qualcomm	3.6x	TI	18.6x	Infineon
9.9x	Broadcom	3.3x	Maxim	18.1x	Maxim
9.3x	AMAT	3.1x	Nanya	16.0x	KLA-Tencor
9.1x	NXP	2.8x	NXP	15.7x	Avago
8.6x	KLA-Tencor	2.6x	KLA-Tencor	15.3x	AMAT
7.9x	NVIDIA	2.2x	AMAT	14.2x	Qualcomm
6.7x	Lam	2.1x	Intel	13.0x	TSMC
6.1x	TSMC	1.9x	Broadcom	12.9x	Intel
6.0x	Infineon	1.8x	<b>SK Hynix</b>	12.0x	Broadcom
5.8x	ST Micro	1.7x	<b>SanDisk</b>	11.9x	Lam
5.5x	Spansion	1.7x	<b>Micron</b>	11.9x	<b>SanDisk</b>
5.4x	Intel	1.6x	Lam	11.3x	NXP
5.2x	<b>SanDisk</b>	1.5x	Infineon	11.2x	Nanya
4.9x	<b>Micron</b>	1.4x	NVIDIA	10.7x	Spansion
3.6x	<b>SK Hynix</b>	0.8x	ST Micro	8.6x	<b>Micron</b>
NA	Nanya	0.8x	Spansion	7.3x	<b>SK Hynix</b>

Source: Market cap and analyst estimates based on FactSet as of 2/5/2014





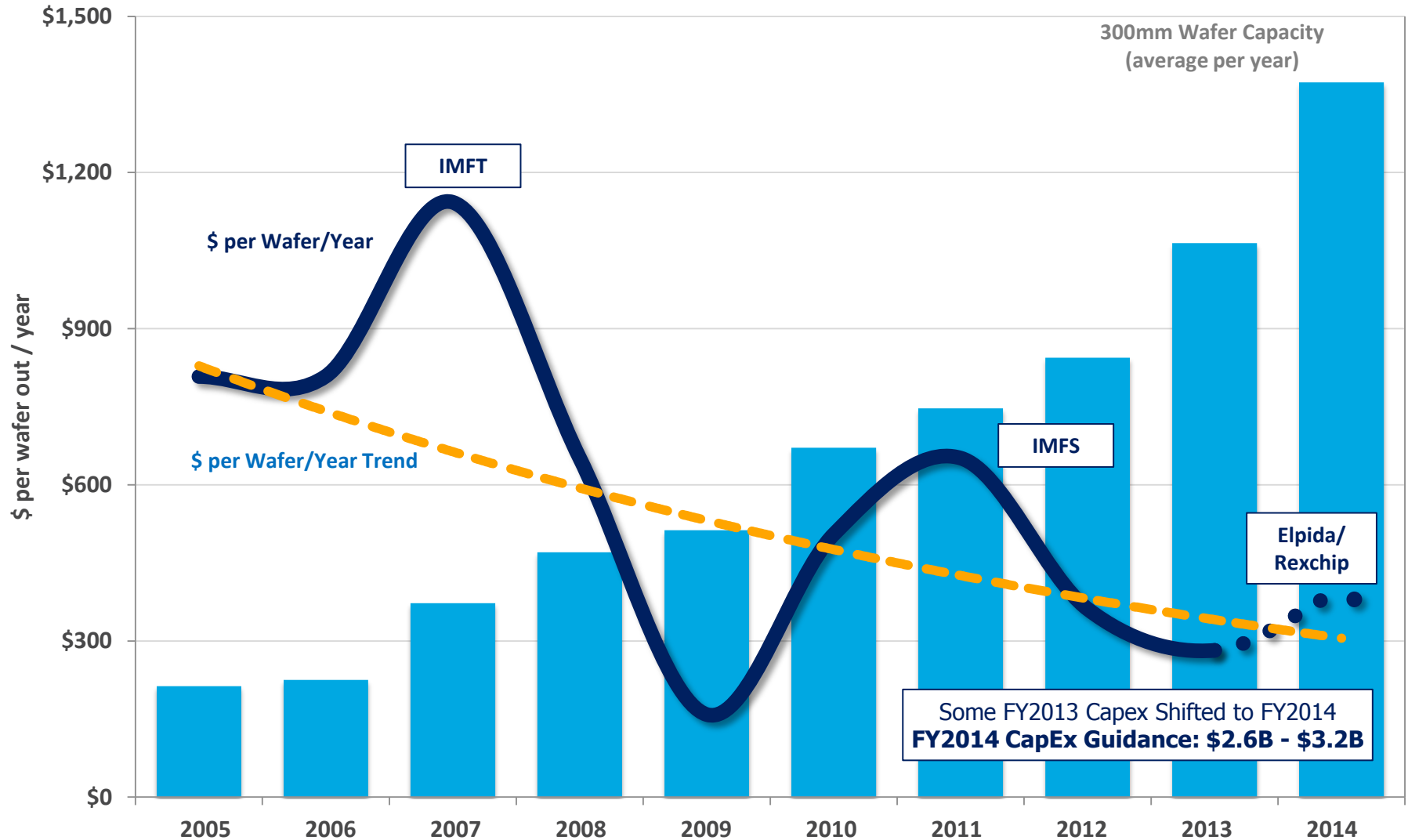
# Strong Cash Flow with Flexible Capital Expenditure



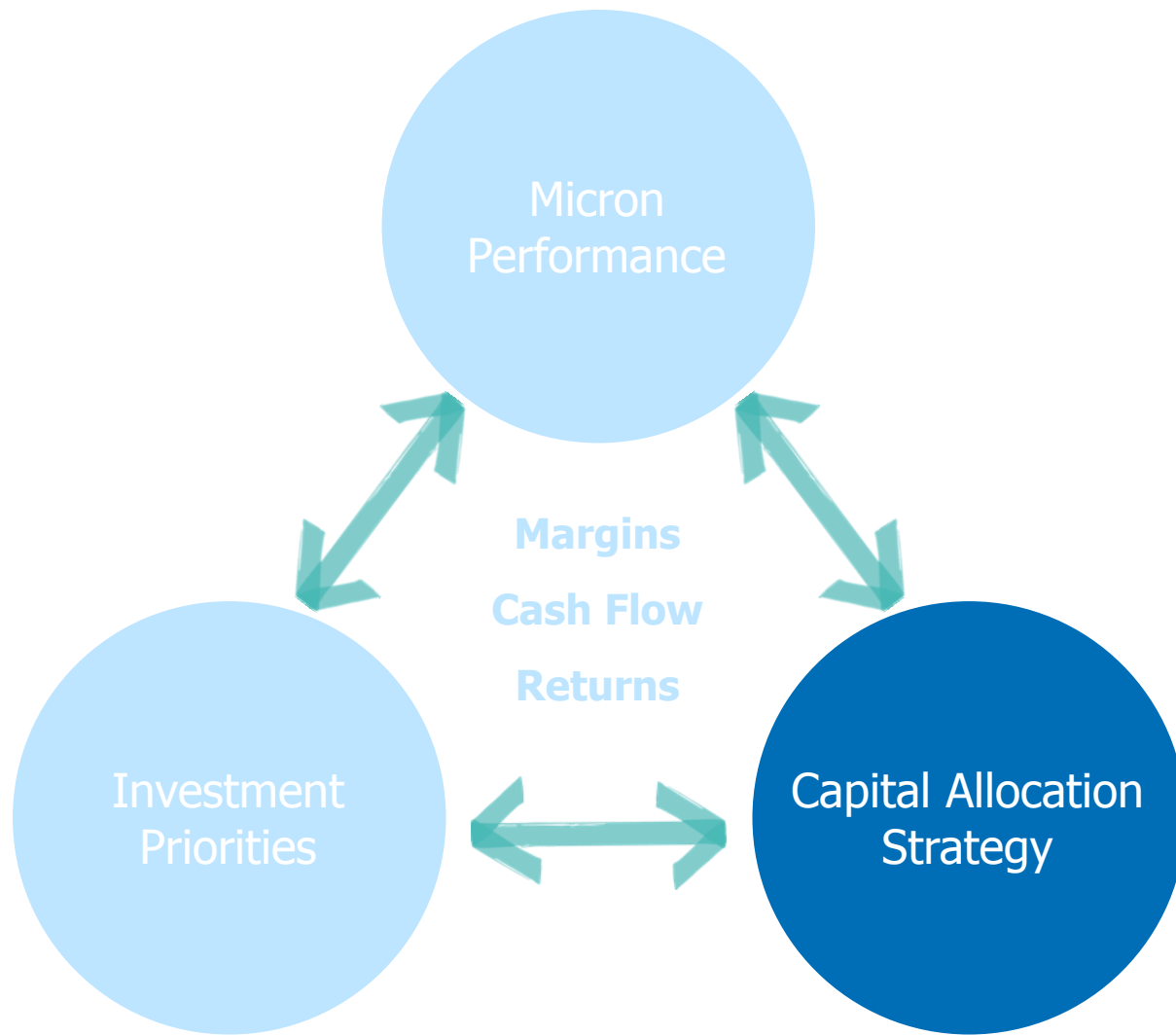
1. Free Cash Flow defined as Operating Cash Flow minus Capital Expenditures

2. Operating cash flow is consolidated Micron with Elpida financial results for FY1-14 on an annualized basis, excluding annualized impact of ~\$250M customer prepayment. Annualized calculations may not be indicative of actual performance. FY2014 CapEx is mid-point of guidance.

# Micron's Capital Intensity Declining



Micron 300mm capacity including wafers produced by Hiroshima and Rexchip fabs and Micron's portion of Inotera's output





## Capital Allocation Strategy

### Capital Strategy

- Operational flexibility
  - No covenants
  - Manageable debt maturities
  - Stable liquidity and balance sheet flexibility
- Low cost of capital

### Resulting Capital Structure

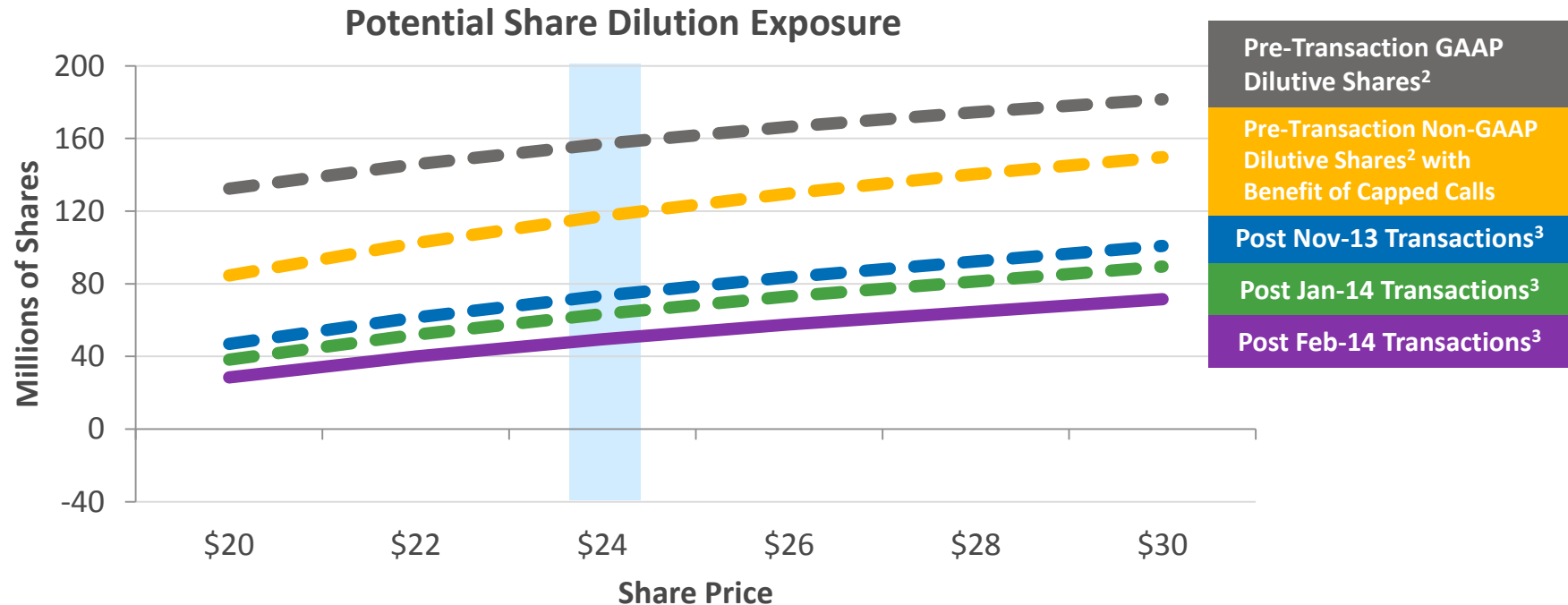
- To-date
  - Asset-backed and convertible notes
- Going forward
  - Add straight debt to the mix with right operational flexibility

### Surplus Capital Allocation Priorities

- Maintain minimum cash level
- Dilution management/reduction
- Reduce debt and leverage levels
- Net cash positive
- Other options to optimize shareholder value – buybacks, etc.

# Dilution Reduction from Recent Convertible Debt Transactions

In total, recent transactions and capped calls reduce economic dilution associated with the convertible notes by 107 million shares assuming a \$24 stock price<sup>1</sup>



- Nov-13 Transactions: Exchanged portion of 2027, 2031 A, and 2031 B notes. Terminated conversion rights of remaining 2027 notes and settled with ~\$179M of cash. Redeemed remaining Series A notes settled with ~\$440M of cash
- Jan-14 Transactions: Repurchased portion of B, C, and D notes with ~\$400M of cash
- Feb-14 Transactions: Redeemed all outstanding 2014 notes

<sup>1</sup>From GAAP dilutive share count; reduction is 68M from non-GAAP dilutive share count

<sup>2</sup>Prior to transactions beginning in November 2013

<sup>3</sup>Includes the benefit of capped calls



POWERING  
**CUSTOMER**  
INNOVATION


# Q&A





**Mark Adams**

President



What are you  
focused on in terms  
of optimizing your  
business and operations?

# Micron Memory in the Interconnected World



# Opportunity: The World's Best Memory Company

## 1 **Industry's Highest Value Bits across the Portfolio**

Drive stronger end-to-end high-value product execution, making high-value market share competitive advantage for Micron

## 2 **World Class Quality**

Quality of products and service that exceeds customer expectations

## 3 **Technology Leadership**

Technology leadership that enables leading memory solutions

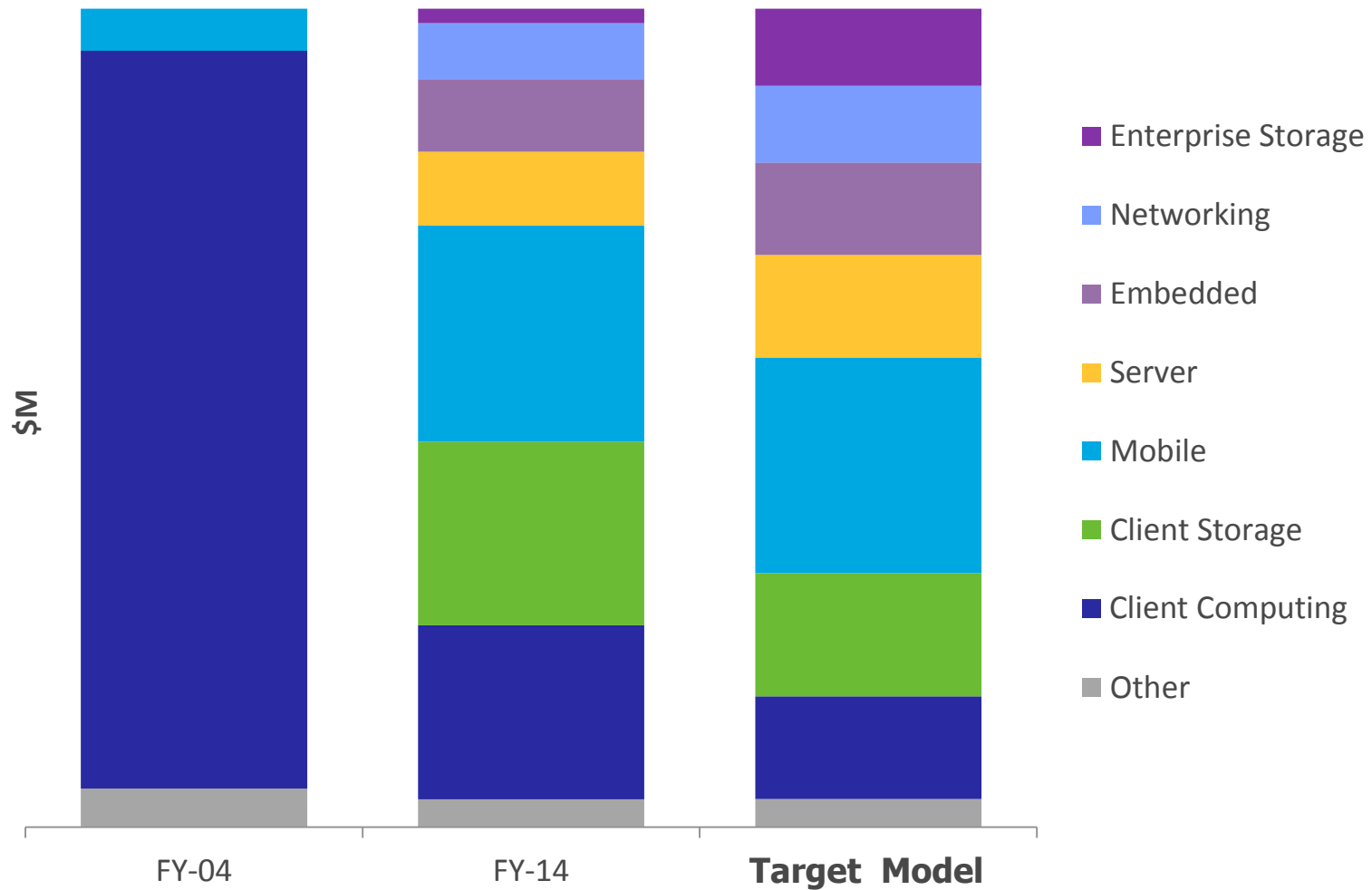
## 4 **Exceptional Customer Experience**

Deep partnership with customers for long-term mutual success

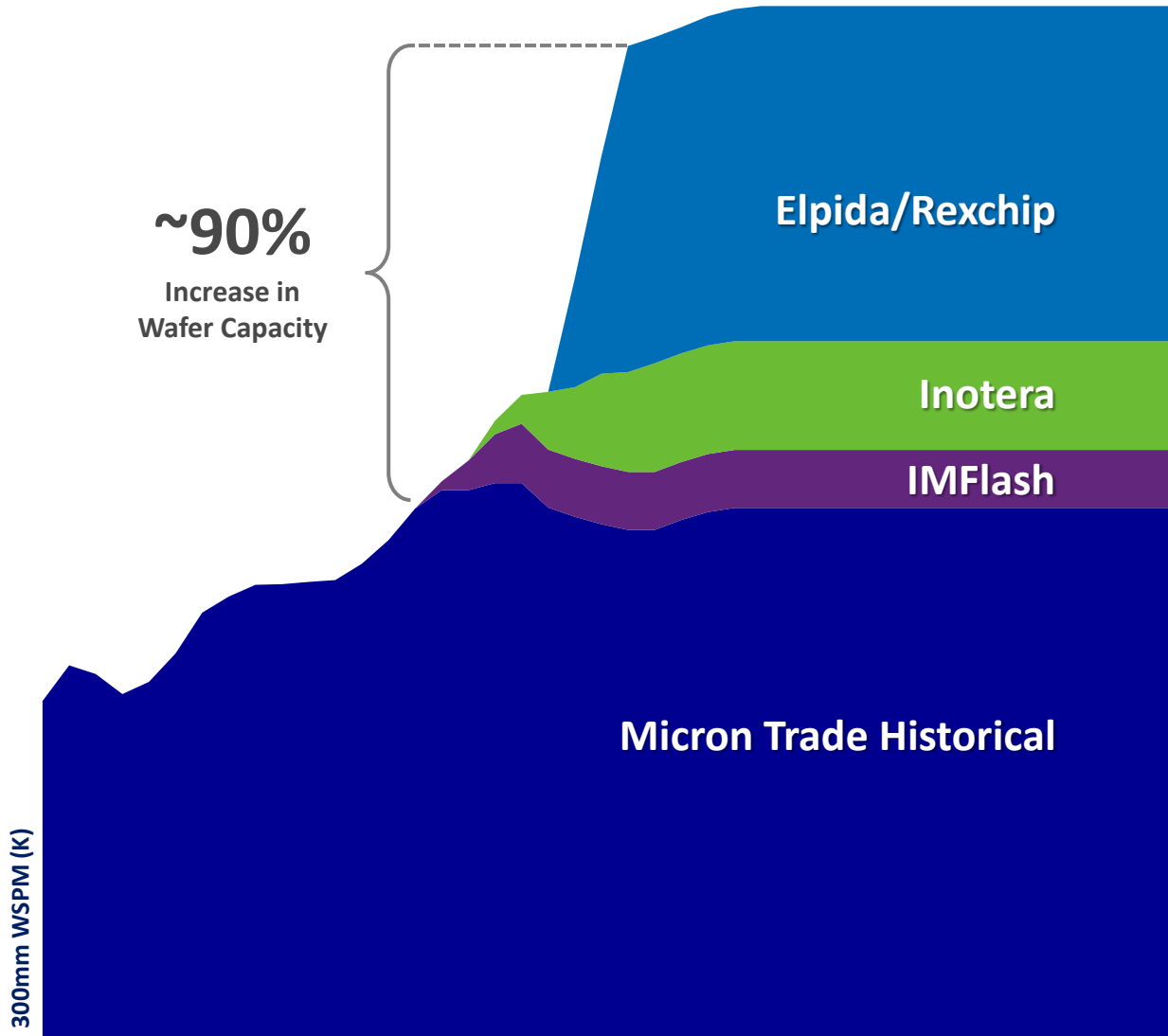
## 5 **Operational Efficiency**

Achieve industry benchmark results using equal, or fewer, resources and less time than the competition

# Driving Business to Higher Value Segments



# Scaled Memory Capacity



## CQ3 '13: Acquisition of Elpida

- Increase mobile segment penetration
- Accelerate DRAM technology roadmap and flexible longer-term capacity

## CQ1 '13: Restructuring of Inotera JV

- Stabilize DRAM gross margin
- No obligation to fund CAPEX

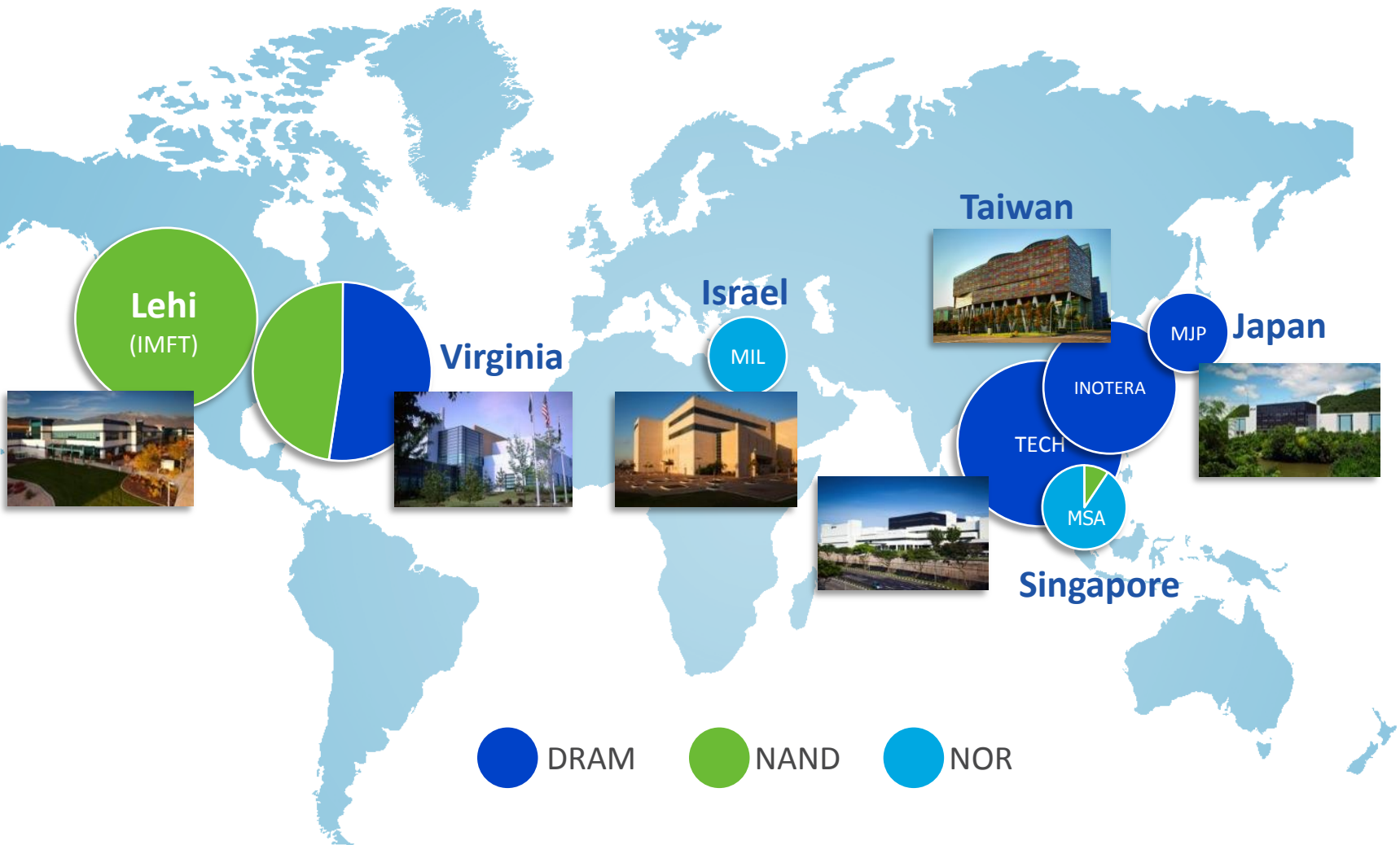
## CQ1 '12: Acquisition of IMFlash (Singapore and MTV) from Intel

- Increase NAND gross margin
- Extend & expand NAND technology JV
- Incremental trade NAND capacity

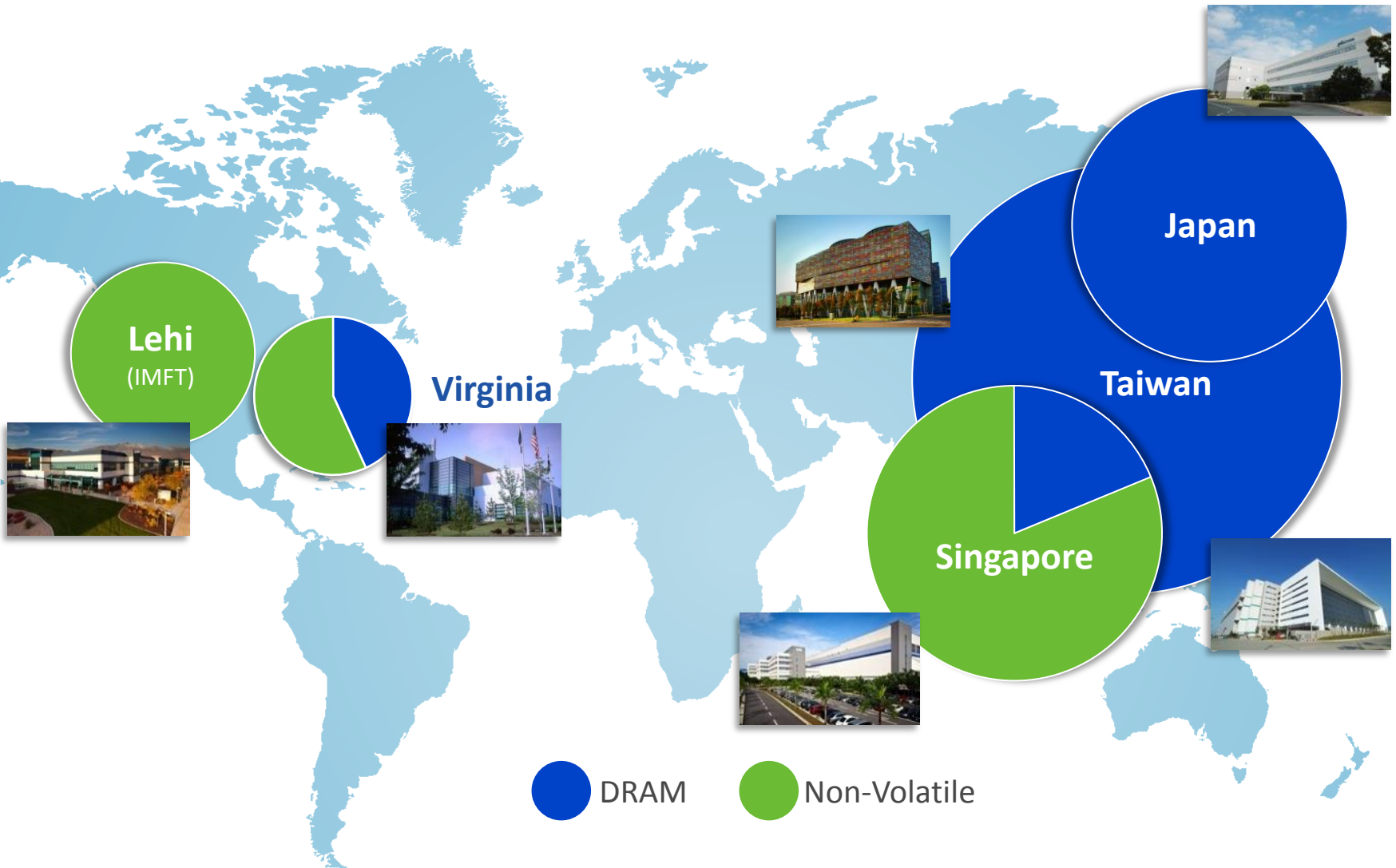




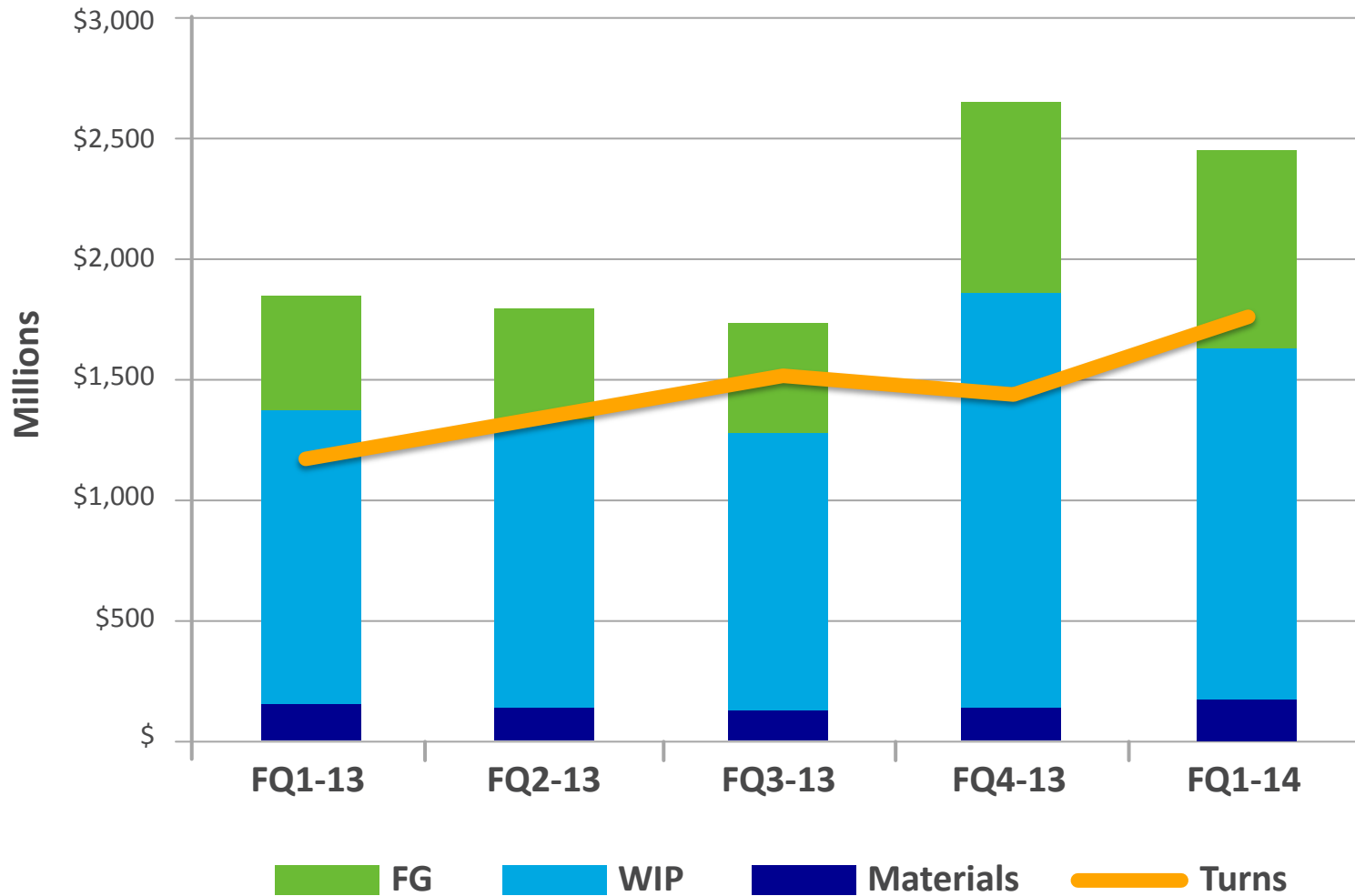
# Micron's Global Manufacturing - 2011



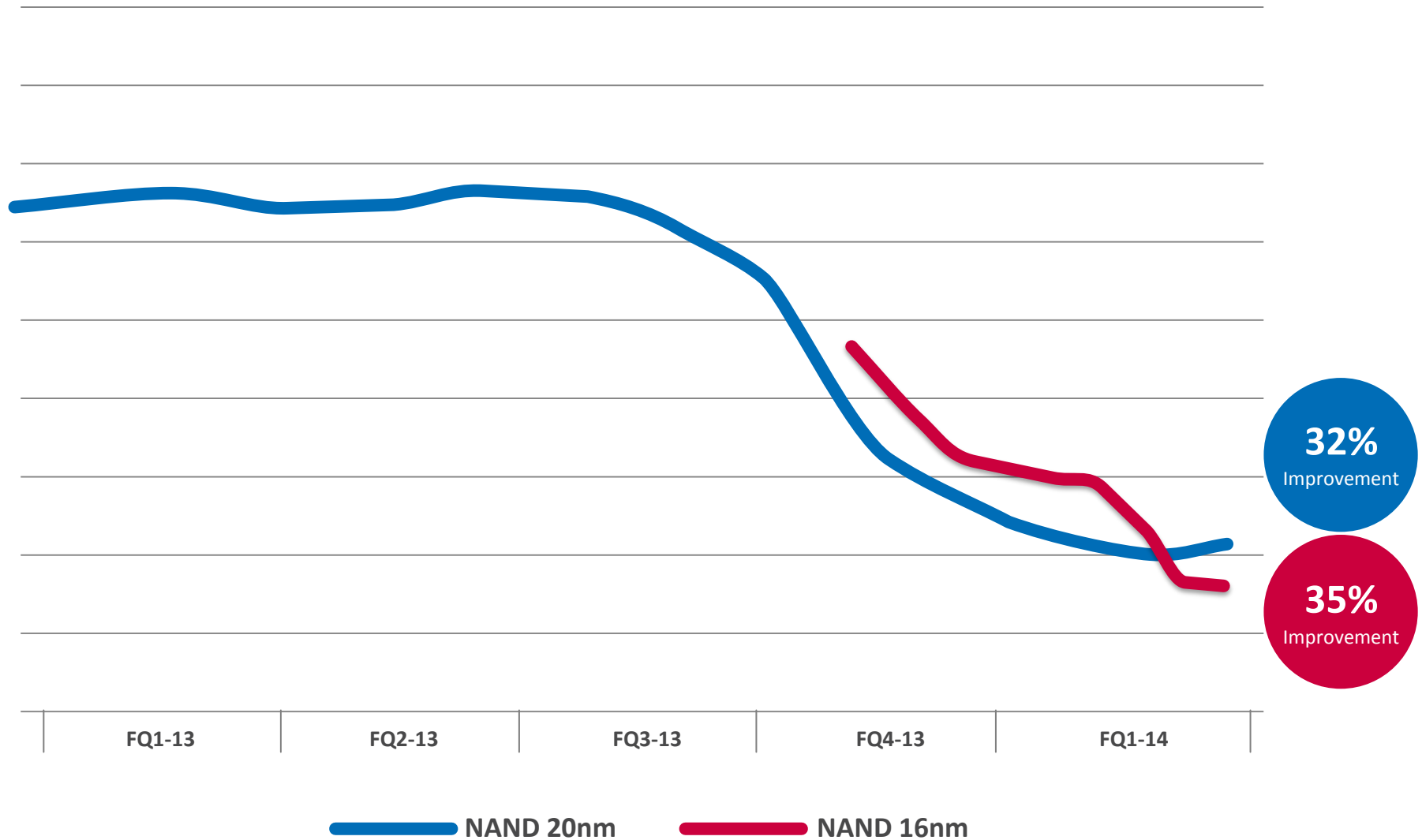
# Optimizing Micron's Global Manufacturing - 2014



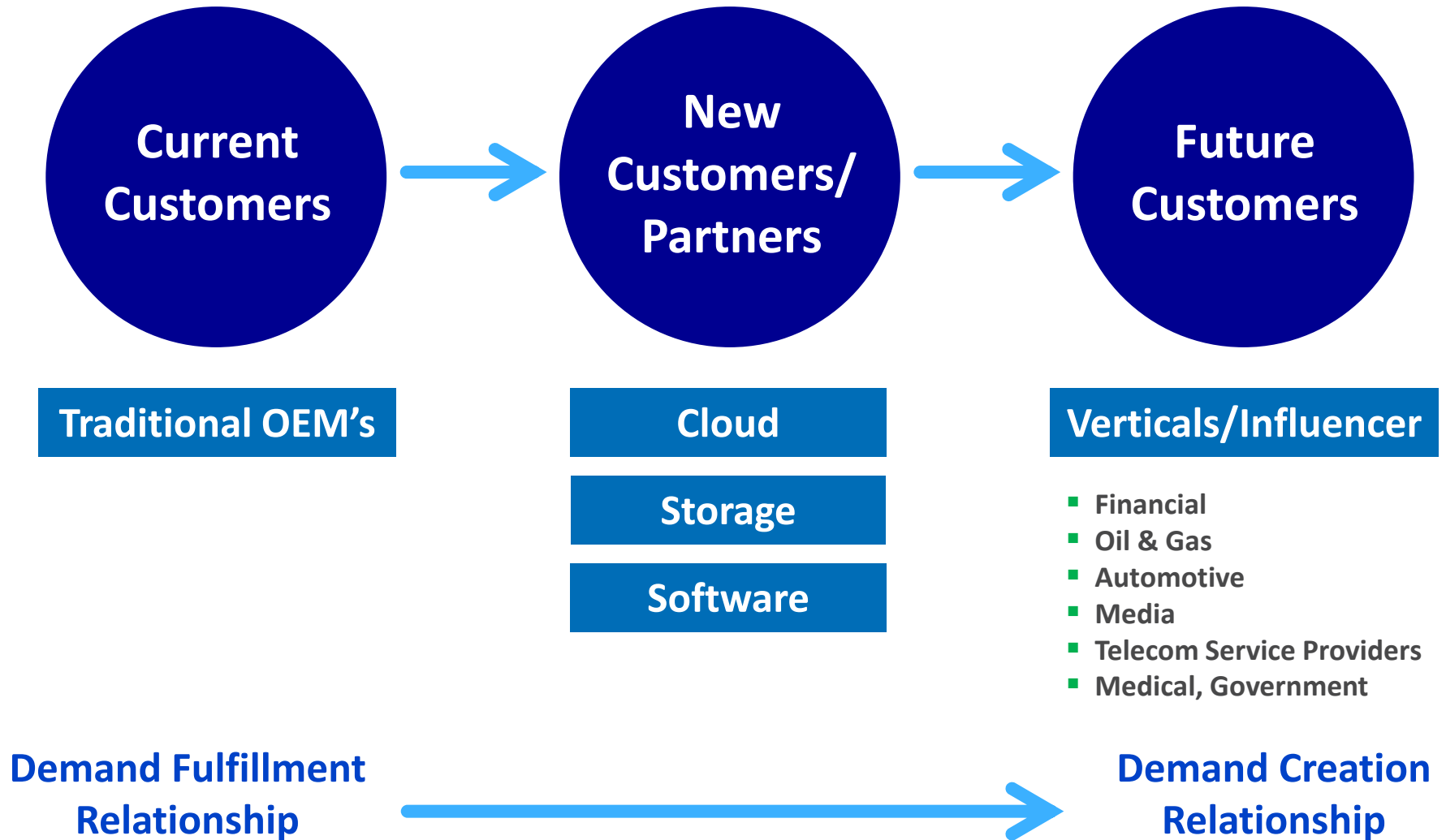
# Micron Inventory Management



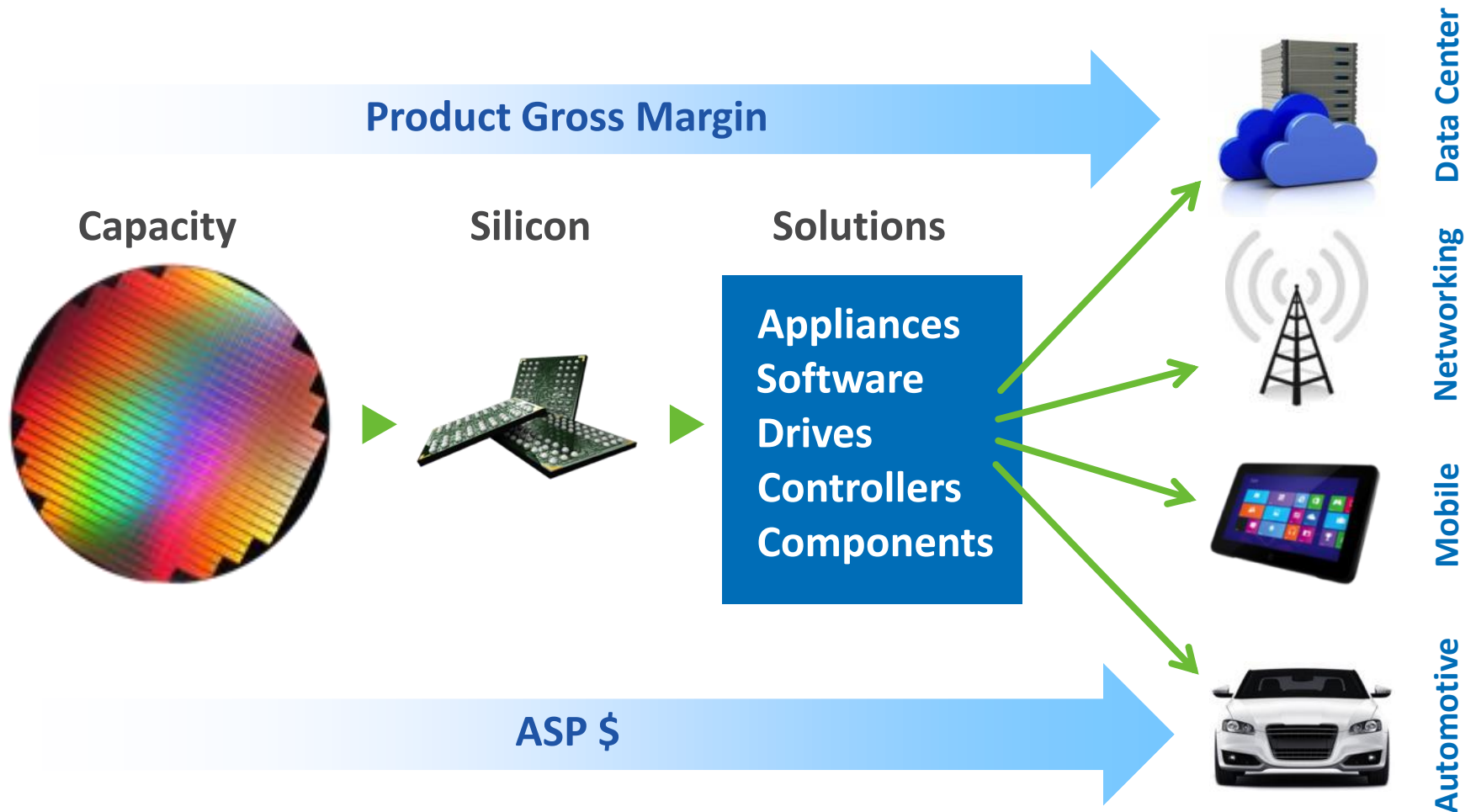
# Cycle Time Improvements



# Customer/Partner Landscape



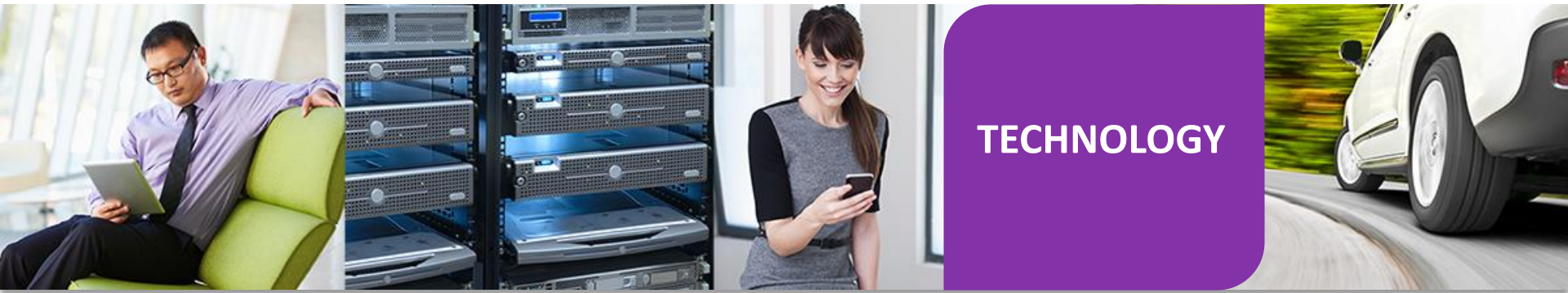
# Moving Up the Value Chain





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# Q&A



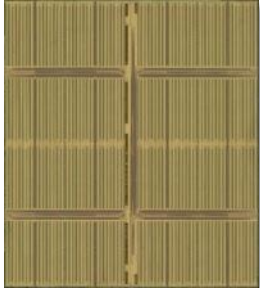


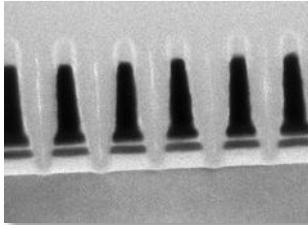
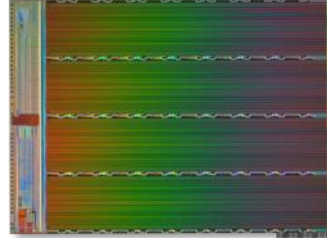
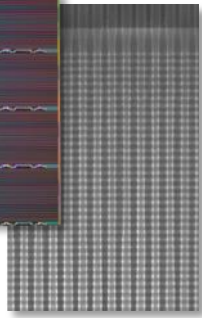
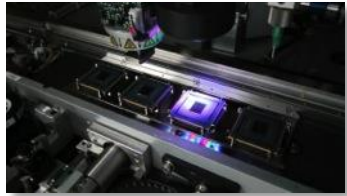

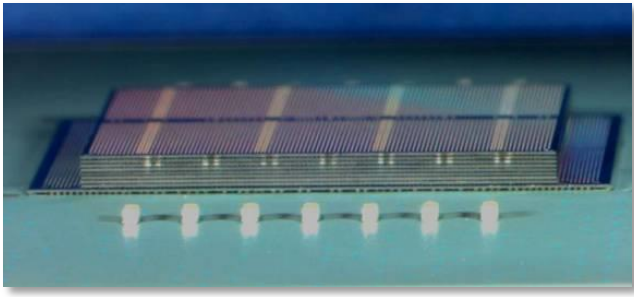
TECHNOLOGY

**Scott DeBoer**


VP of R&D



# 2013 R&D Highlights

	2013 Key Accomplishments	New in 2014
<b>DRAM</b>	<p>Technology roadmap alignment following Elpida acquisition, on track for execution of 25nm and 20nm DRAM</p>  <p>25nm DRAM</p>	<p>20nm DRAM</p>  
<b>NAND</b>	<p>World-leading NAND process technology with most rapid yield ramp in Micron history</p>  <p>16nm Planar NAND</p>	<p>3D NAND</p>  
<b>Package Technology</b>	<p>Initial HMC demonstration and customer sampling</p>  	<p>Next generation HMC package development</p> 

Images are not to scale



What is Micron's DRAM position post the Elpida acquisition?

What is Micron's view for DRAM sub 20nm?

# DRAM Technology Development

## Combining Resources to Speed Transitions



### Hiroshima

25nm mobile and server production

R&D focus on rapid 20nm yield improvement

Enhanced R&D in manufacturing model



### Boise


1Xnm development focus

Long-range DRAM pathfinding

Disruptive process and materials development

### Immediate benefits from Micron-Elpida combination

- Pre-close JDP enabled early alignment and strong focus on execution following close
- Unique benefits from the combined experience base and technical depth of the DRAM development team
- Substantial increase in fab, characterization, and simulation resources focused on DRAM
- Result is an exceptionally strong engine for DRAM technology development

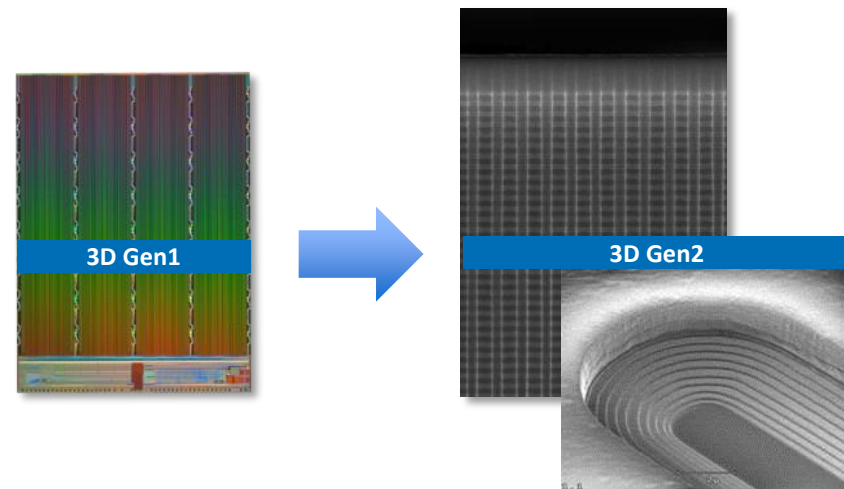
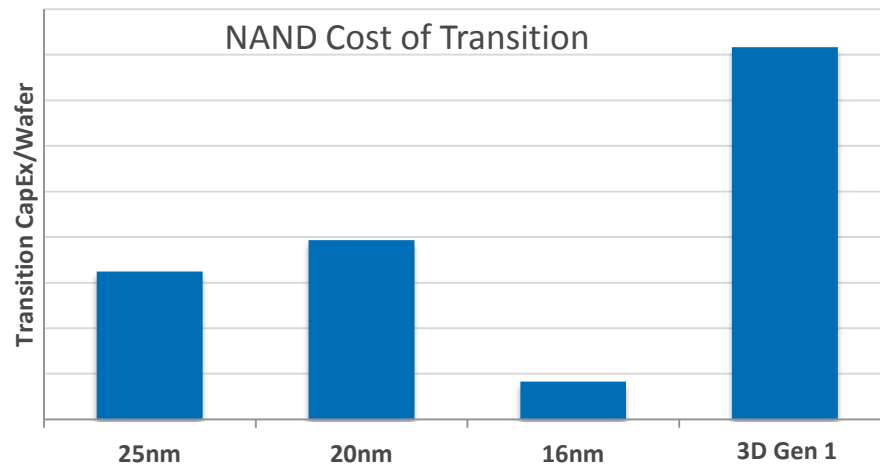
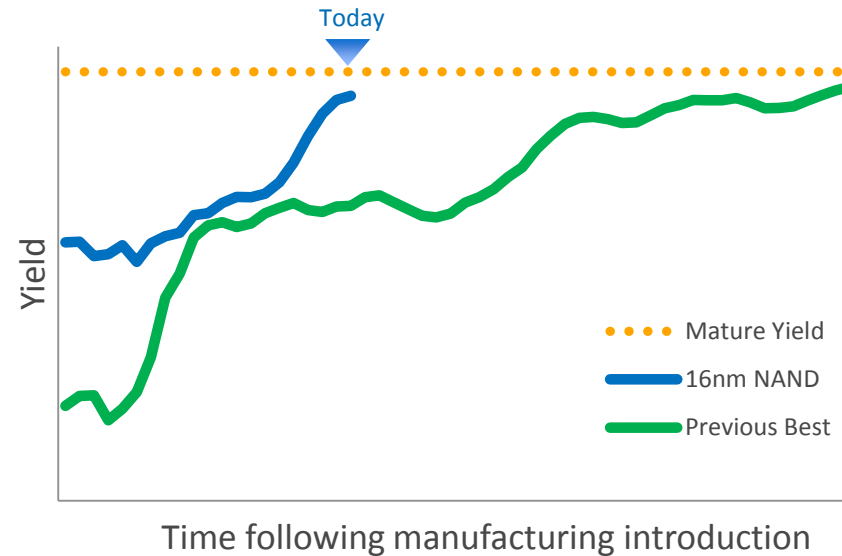



Please discuss your overall NAND strategy for planar and 3D NAND.

What is your view on 3D NAND in terms of timing and impact on industry supply?

# Micron NAND Technology Leadership

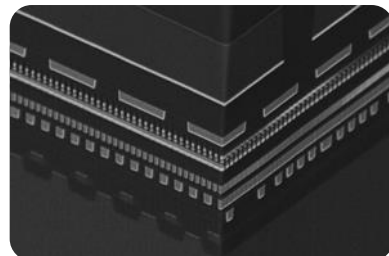
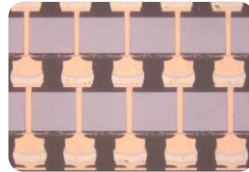
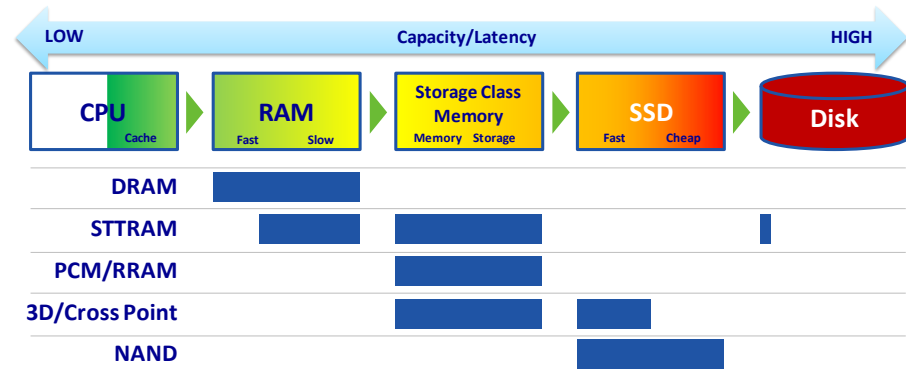
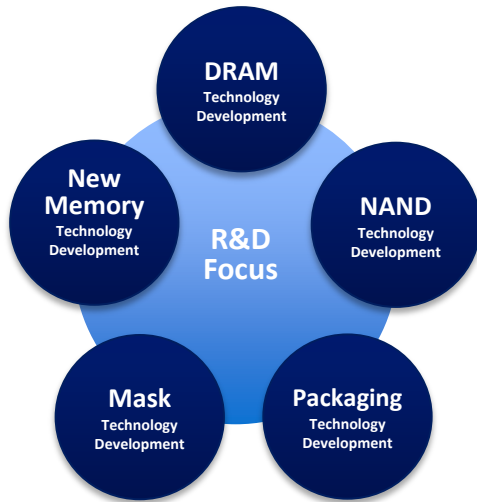
- Planar NAND strength continues with fastest yield ramp in Micron's history
- Exceptionally cost effective 16nm node will be majority of Micron's output by 2H14
- 16nm NAND based SSD products now qualified
- 3D NAND development is on track. Volume in 2015 as cost structure benefit over planar is enabled






What is your strategy for addressing potentially disruptive technology and other emerging trends in semiconductor memory?

# Focus Areas for Future Differentiation



## Focus on new enabling technology for differentiated memory solutions

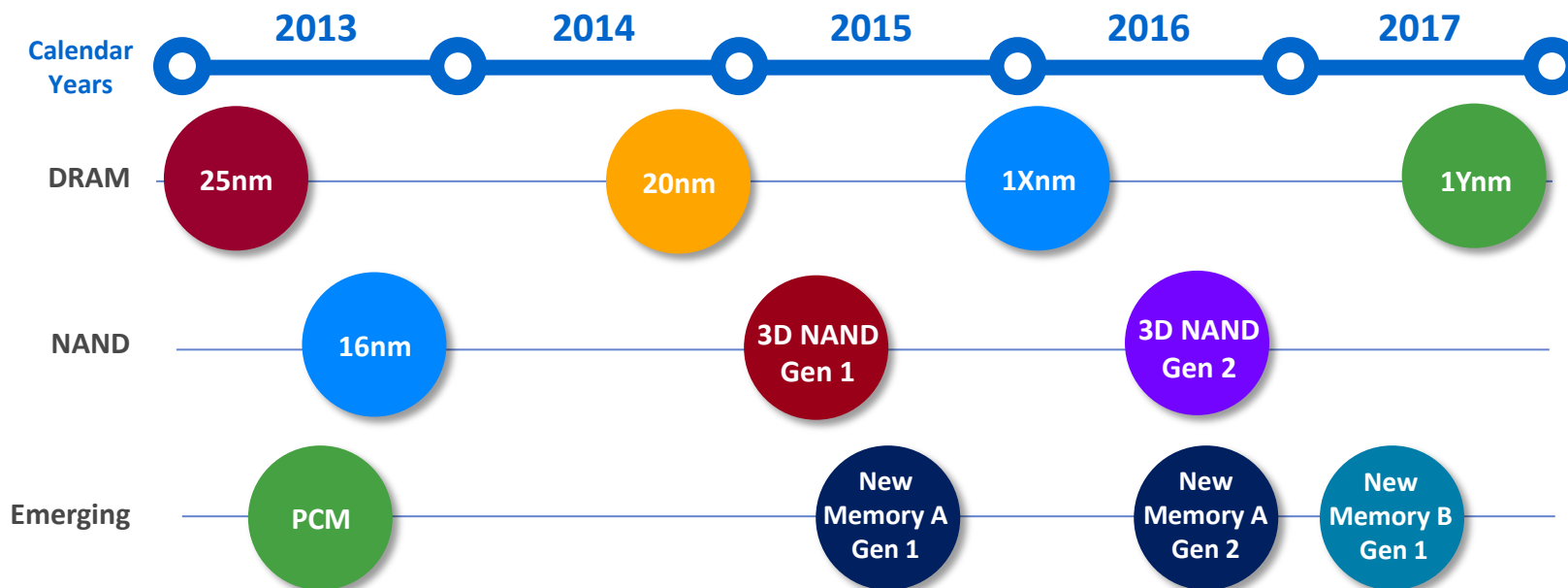
- NAND and DRAM continue to exclusively cover significant portions of the memory application space
- Great opportunity for technology differentiation in both NAND and DRAM based memory systems
- Yield improvement of differentiated new memory solutions will require novel component and packaging technology, as well as system development and adaptation



Please provide an update on  
Micron's roadmap for  
DRAM, NAND, and new  
memory process technology



# Memory Technology Timelines



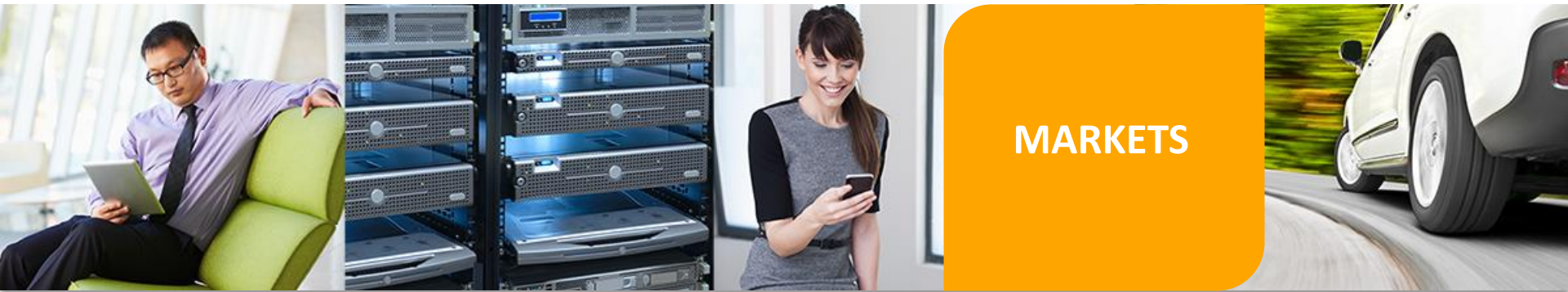
Position in time indicates expectation of volume capability

- Increased focus on DRAM technology position enabled following Elpida acquisition
- Maintain strong planar NAND position with 16nm volume ramp in 2014
- Market enablement with vertical NAND in 2014, ramp in 2015
- Enable disruptive new memory technology and position for ramp in 2015
- Core technology leadership well positioned to enable Micron's diverse product portfolio




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# Q&A



**Brian Shirley**

VP DRAM Solutions Group



Discuss the key market trends, Micron's position, and strategy in both DRAM and NAND.

How do you structurally improve your gross margins?

# The Connected Ecosystem

Enabled by Micron Memory



Computing

**Roughly 2.3 trillion GB of data being created every day...**

Source: IBM



Storage



Networking

Embedded



**...by 2015, the equivalent of an archive of all movies ever made will cross the Internet every 5 minutes!**

Source: Cisco

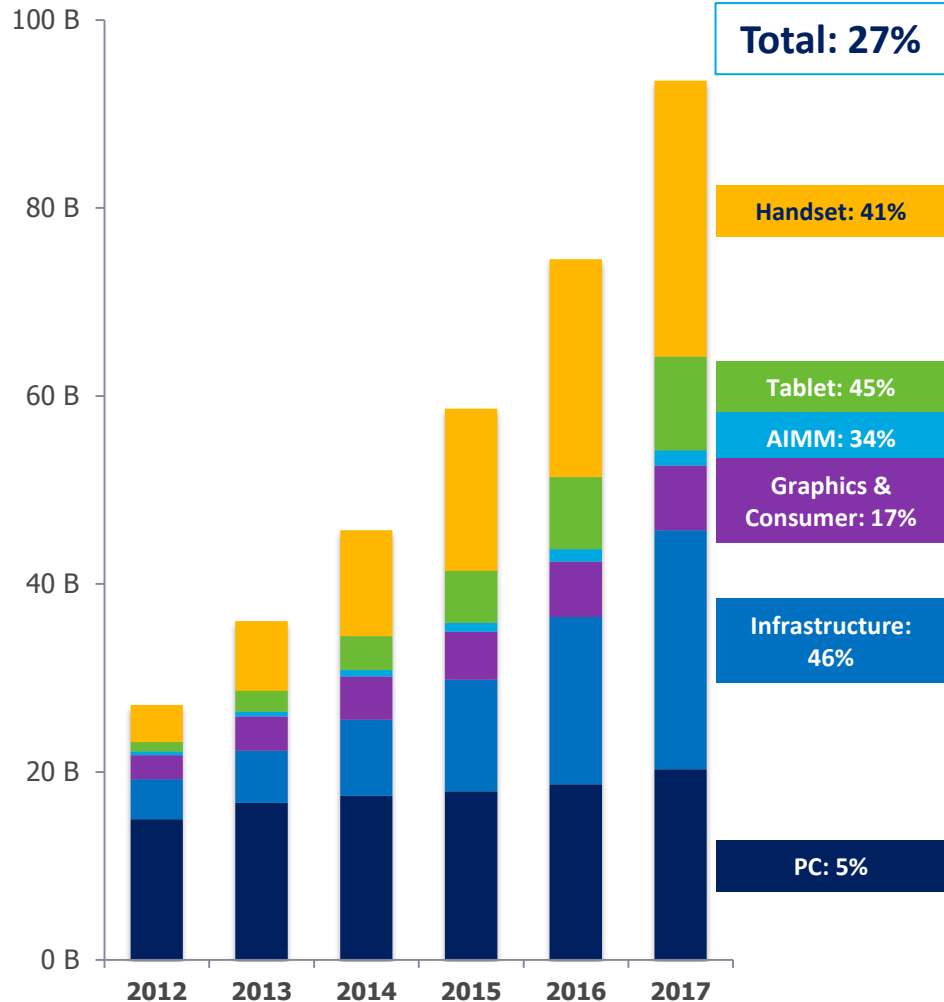


Mobile

# DRAM Market Demand

DRAM Bit Demand (B Gb EU)

Segment; '13-'17 CAGR



Source: Micron and Industry Analysts

Infrastructure includes server, storage, and networking; upgrade modules included with PC

## Graphics and Consumer

- New consoles driving 16x more DRAM content per box than previous gen
- High-speed DDR3 and GDDR5

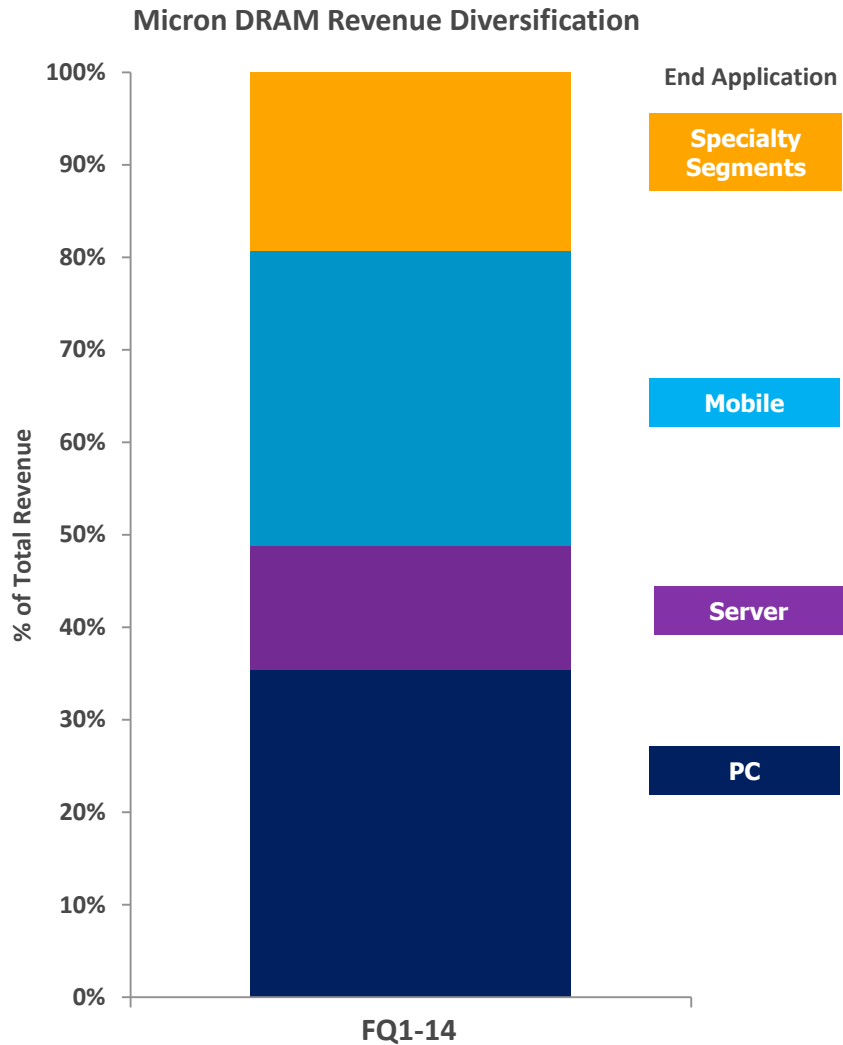
## Networking

- Packet processing moving from 400Gbps to 1Tbps design targets; Access rates and latency outstrip DDRx capabilities
- RLDRAM, HMC, and legacy DRAM

## Enterprise

- Server segment driving DRAM growth  
→ CAGR '12 – '17 49%
- High-density modules, NVDIMM, HMC

# DRAM Market Position



Source: Micron

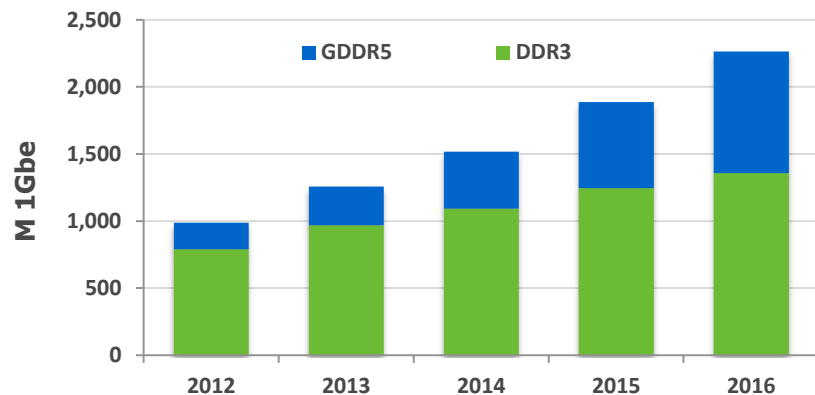
## Micron Position

- Large global manufacturing scale
- Well established position with key OEMs and end-market customers
- Broadest DRAM portfolio in the industry
- Leader in DRAM innovation

# Graphics DRAM Continues to Grow

GDDR5 makes Micron a Full Portfolio Graphics DRAM Supplier

Graphic Card Market TAM: GDDR5 & DDR3



4Gb GDDR5



Width **x32**  
 Voltage **1.5V – 1.6V**  
 Speed **Up to 7 Gb/s**  
 Refresh Cycles **16K/32ms**  
 Banks **16**

Consoles Requiring High Density / Performance DRAM

XBOX One

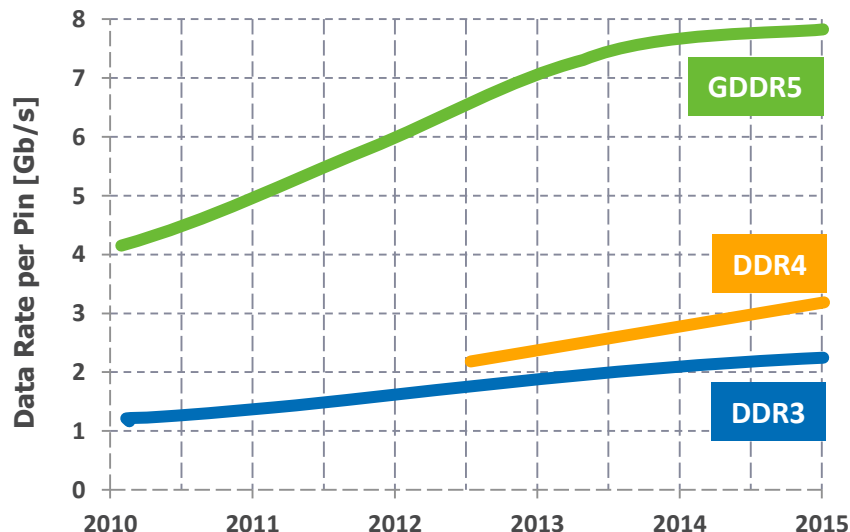


4Gb DDR3 x16 2133  
 16pcs / console → 8GB  
 68 GB/s

Sony PS4



4Gb GDDR5 x32 5.5 Gb/s  
 16pcs / console → 8GB  
 176 GB/s

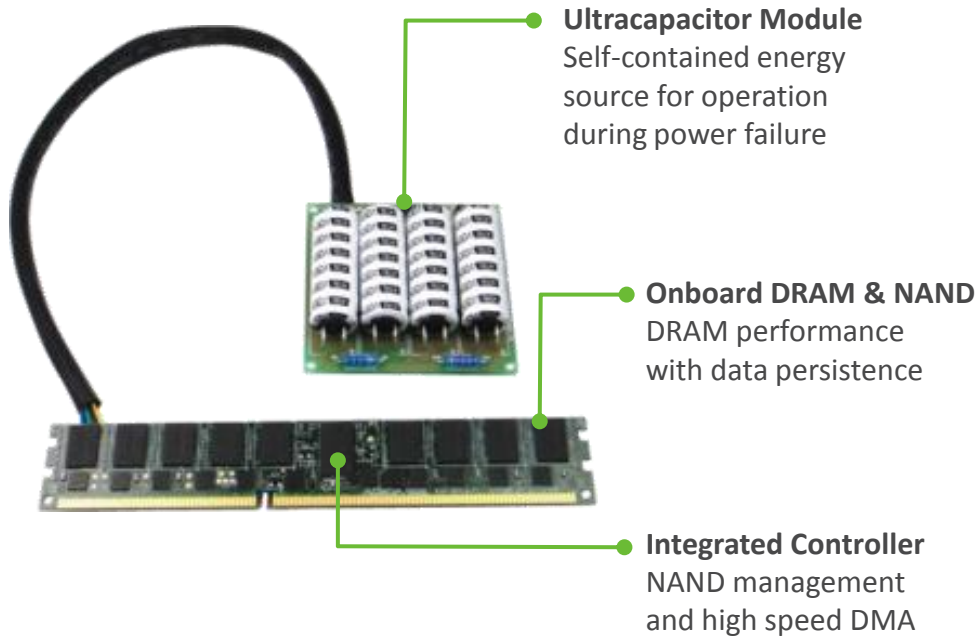




# Non-Volatile DIMM (NVDIMM)

Persistent Memory Enabled by DRAM + NAND

## Solution Overview



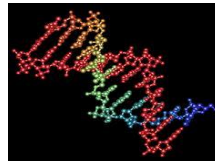
- 4GB/8GB DRAM/NAND
- SLC NAND for high endurance
- DDR3L-1333, DDR3-1600
- 8GB/16GB DDR3
- 16GB/32GB planned for DDR4



Oil & Gas  
Exploration



Financial Data  
Integrity



Medical  
Research



Financial  
Transactions



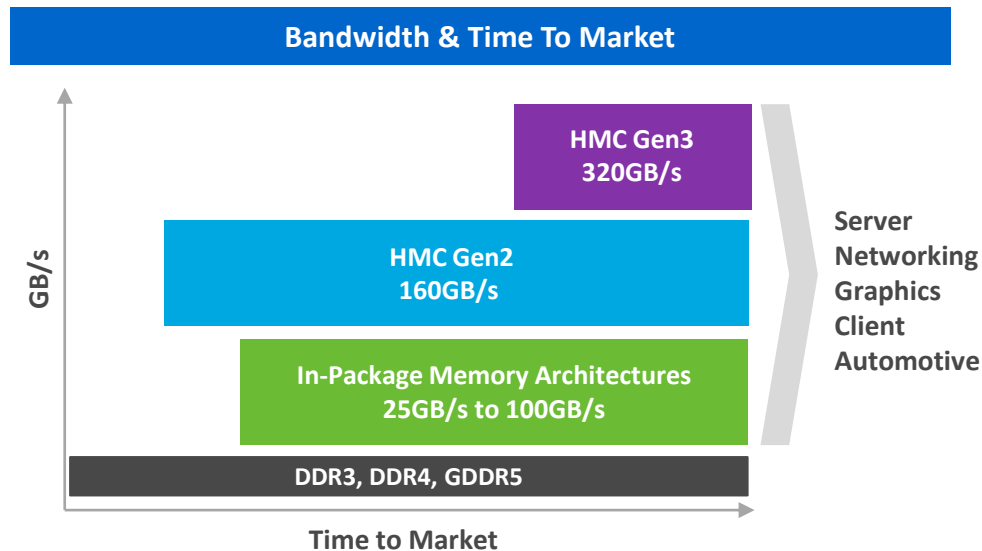
Power Loss  
Events



Big Data  
Analytics

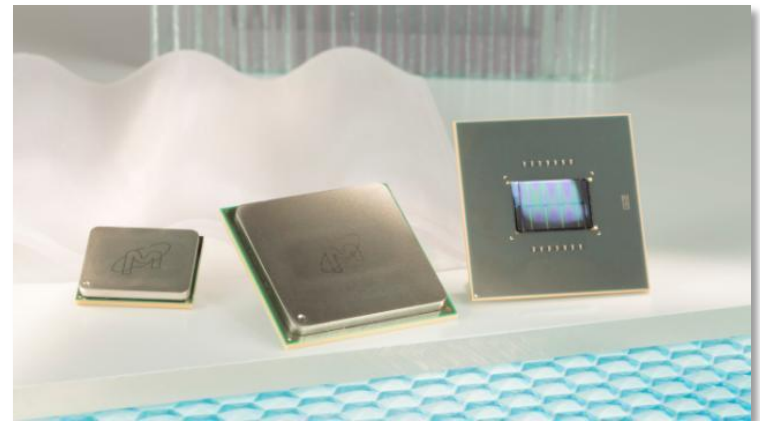
# HMC – Delivering Innovative Memory Solutions

## From Concept to Reality



### HMC Progress

- 2GB and 4GB options available now
- Engineering samples shipping today
- Multiple partner demo platforms running
- Volume production begins Fall 2014
- Gen2 design wins in progress = 18+
- Gen3 draft specification released to HMCC Adopters



# Automata Processor

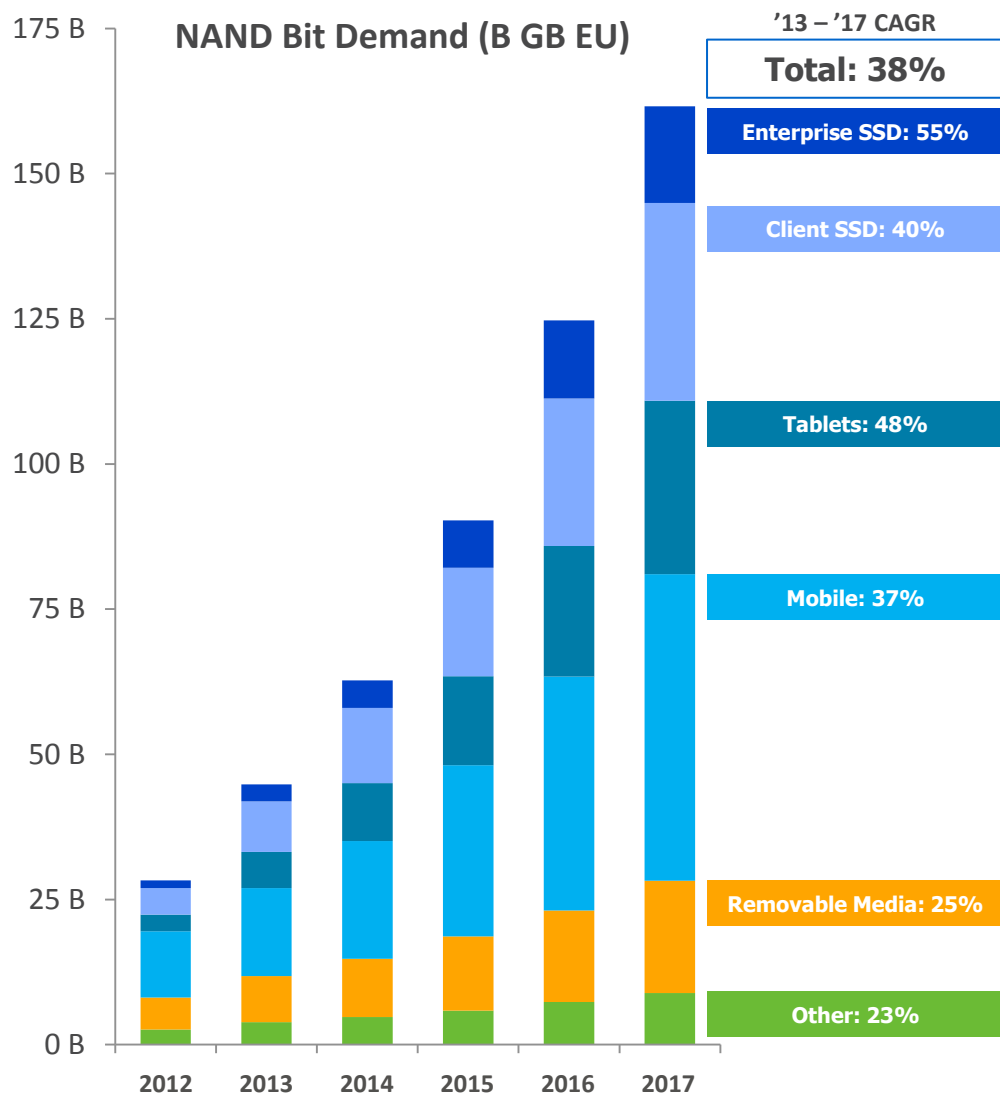
## Massively Parallel Computing Solution

- Provides a fundamentally new, non-von Neumann approach to computing
- Performs high-speed, comprehensive search and analysis of complex, unstructured data streams
- Leverages intrinsic parallelism of DRAM to answer questions about data as it is streamed across the chip
- Scalable, two-dimensional fabric comprised of thousands to millions of interconnected processing elements, each programmed to perform a targeted task or operation

## Partners & Researchers



# NAND Market Update



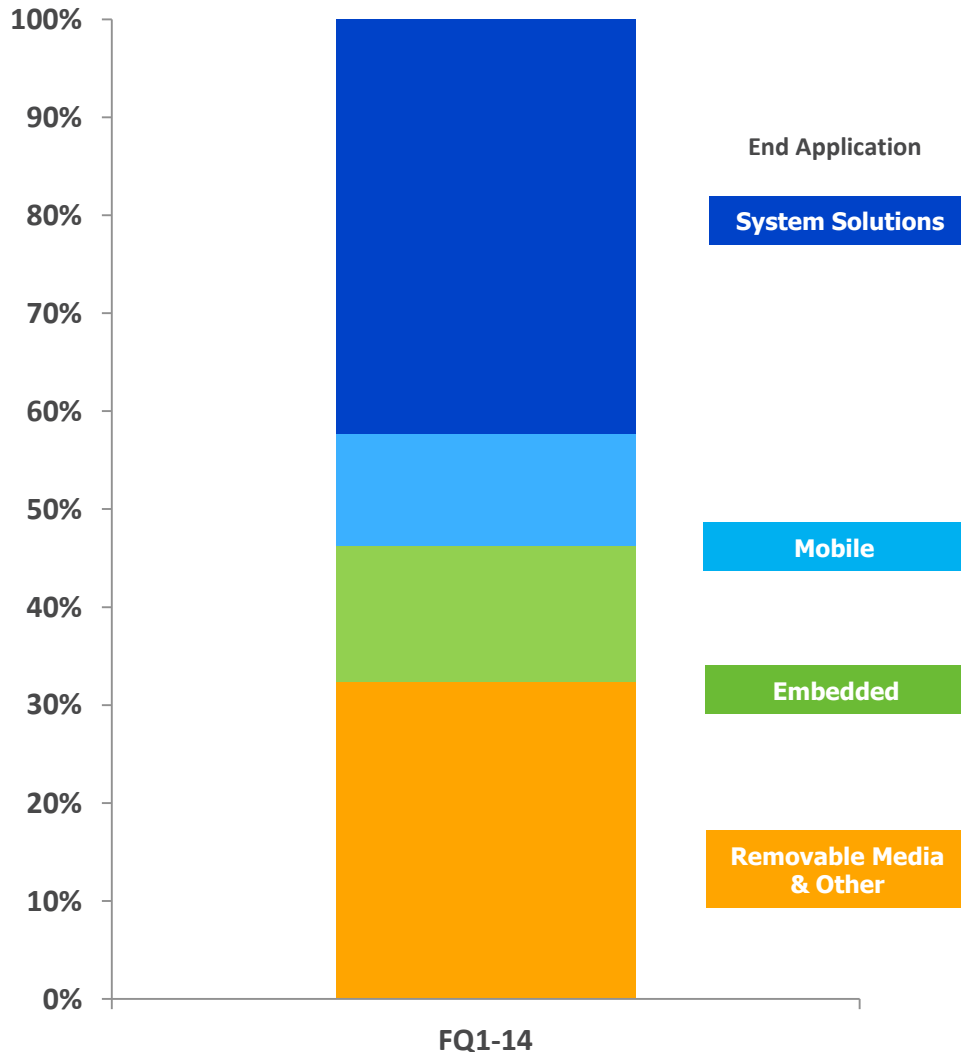
Source: Micron and Industry Analysts  
Other includes H-HDD, AIMM, Networking, and other

## Micron Position

- Enterprise SSD interface move to PCIe accelerates increasing value in application specific software
- Client SSD attach rates accelerate with 20nm drives
- Next generation eMMC drives launching for mobile in 2014
- UFS specification ready for launch in 2015

# NAND Market Position










Micron NAND Sales by Application




## Micron Position

- Profitable NAND growth in Enterprise, Client & Tablet
- Total NAND quarterly revenue exceeded \$1B in Q1'14 for the 1st time in Micron history
- Expanding portfolio of SSDs for application-specific performance, reliability and endurance demands
- Accelerating capital-efficient 16nm ramp, improving cost position
- Accelerate growth in Embedded by expanding lineup of industrial managed NAND solutions
- Expanding footprint in mobile applications


# COMPLETE Storage Portfolio

Category	Description	Endurance	Products
IO Accelerators	Read/write accelerator	10+ drive fills/day	 
	Read Accelerator/ Metadata storage	1-3 drive fills/day	 
Mission Critical Storage	Active, business-critical data	5-10 drive fills/day	 
Cloud/Web 2.0 Storage	Active data	1-5 drive fills/day	 
Personal Storage	Single user or bulk storage	Up to 40GB/day for 5 years or <1 drive fills/day	

# P420M Reviews are in!!!!





## Product Summary Breakdown



Performance	90%
Quality, Design, Build and Warranty	92%
General Features	95%
Performance Consistency	95%
Power Consumption and Efficiency	90%

**Overall TweakTown Rating** 92%

**The Bottom Line:** The Micron P420m provides enterprise-class features at a much lower price point. The P420m is well-suited for the majority of mainstream applications, and provides class-leading read performance in both sequential and random workloads.

**MUST HAVE**  
  
**BEST VALUE AWARD!**  
TweakTown



The P420m differentiates in an increasingly crowded space in a number of ways. Beyond the predictable performance numbers quoted by Micron, the drive is also a universal form factor (PCIe) which is great for standard server deployments. It's also offered of course in the unique 2.5" PCIe form factor that Dell has adopted across their [PowerEdge 12G server line](#). At the end of the day though, the standard PCIe card is dead simple to deploy, fits within PCIe spec (not all cards do) and uses a basic architecture with a single controller and fewer fail points. Tack on the new capacitors for power fail protection and the solution is reliable and compatible, built on a proven architecture.

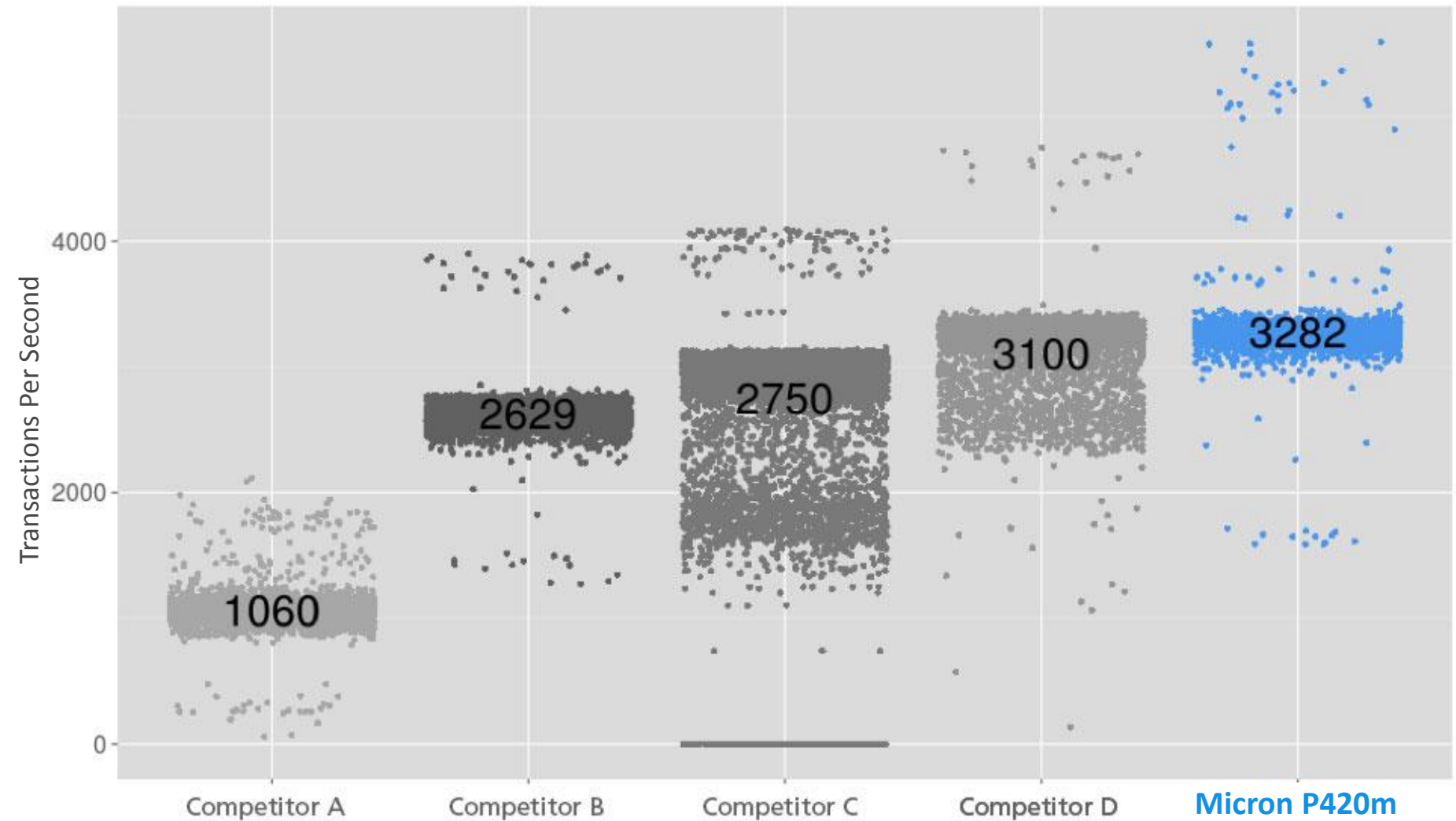


Professionals shopping for storage for data center caching, media streaming, and online transactional processing have a drive here that should exceed their expectations.





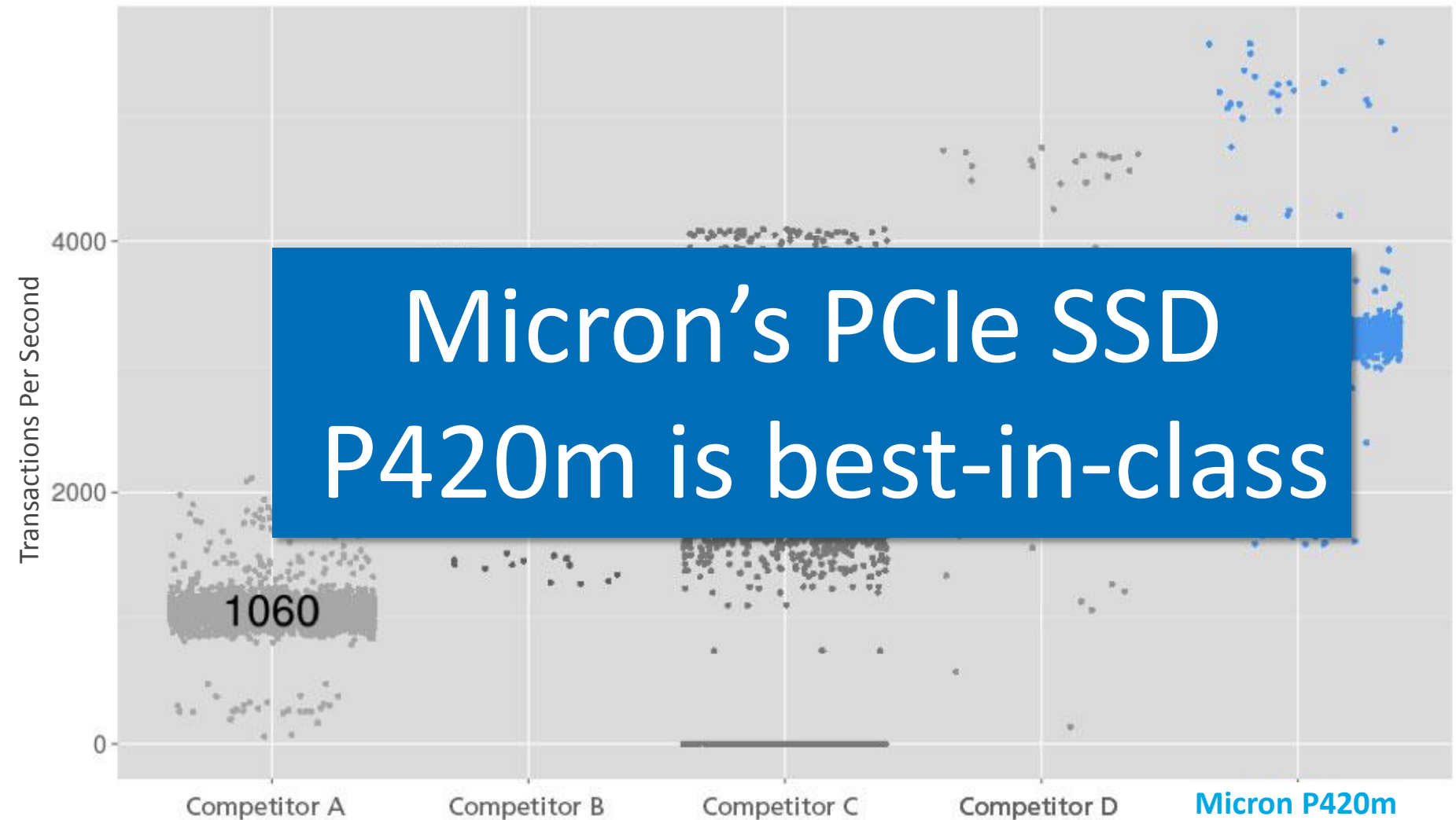
# SSD Latency and Consistency Matter



***Real-world SQL data base SysBench evaluation***

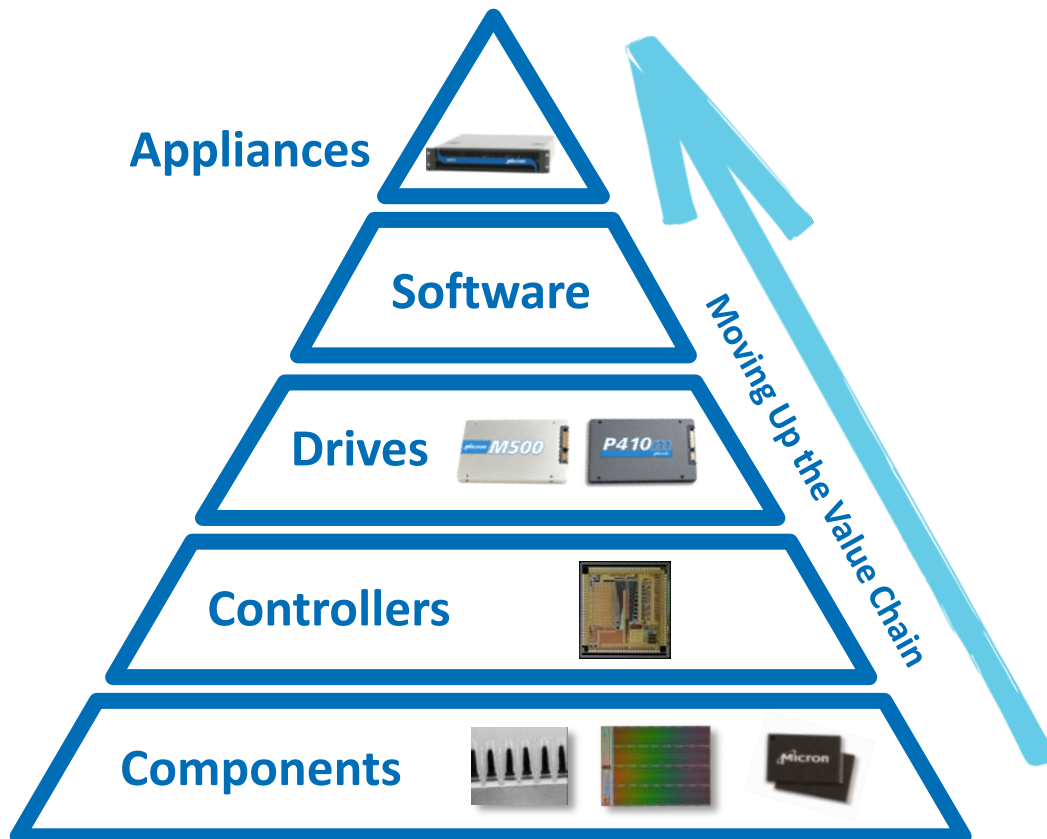


# SSD Latency and Consistency Matter



***Real-world SQL data base SysBench evaluation***

# NAND Focus



## Micron Strategy

- Ensure continued component cost leadership through 16nm and vertical transitions
- Enable TLC where it provides real cost/bit advantage over alternatives
- Use internal controller bandwidth for early time-to-market / platform IP
- Leverage component / controller / software synergies for targeted eSSD opportunities



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# Q&A



**Mike Rayfield**

VP Wireless Solutions Group

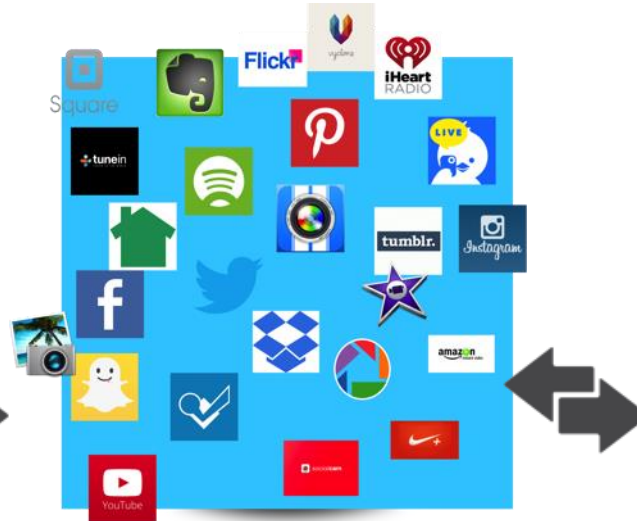


Discuss the mobile  
segment trends, Micron's  
position, and strategy

# Mobile Client: Driving Markets...



*Devices*



*Applications*



*Cloud & Enterprise*

**As the remote control for the connected life** – high resolution video, retina display, responsiveness, long battery life, rich immersive experiences from system innovation enabled by Micron mobile memory solutions

- New embedded apps require more computing.  
Where there's more computing, there is more memory
- The ecosystem has redefined how we create and consume content –**independent of form factor**
- Multiple device ownership. Users expect the best experience on every device, **increasing processing and memory requirements in lower end devices**

# ...and Memory Requirements

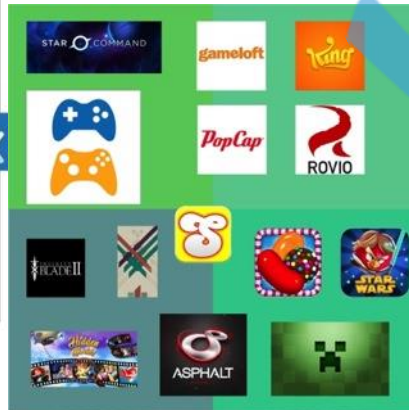
*Social/Viral Video*



*Mobile Biometrics*



*Mobile Gaming*



*Mobile IT*



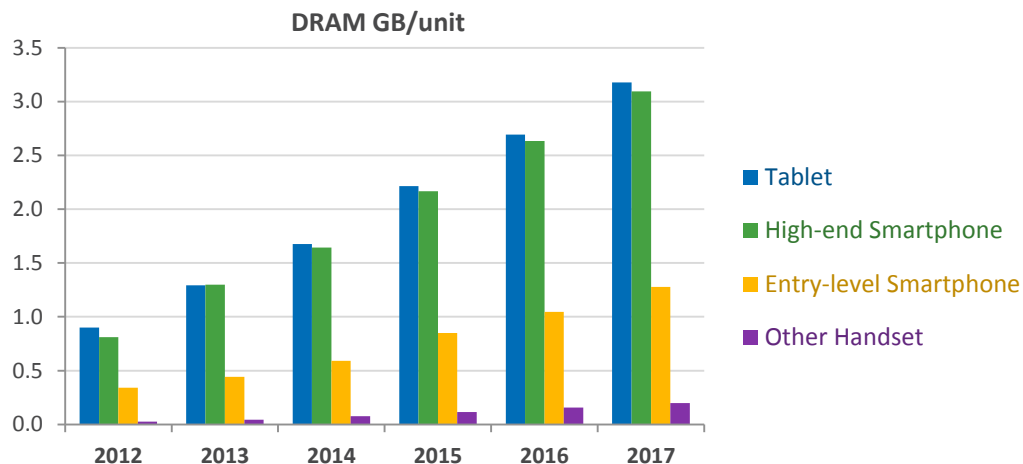
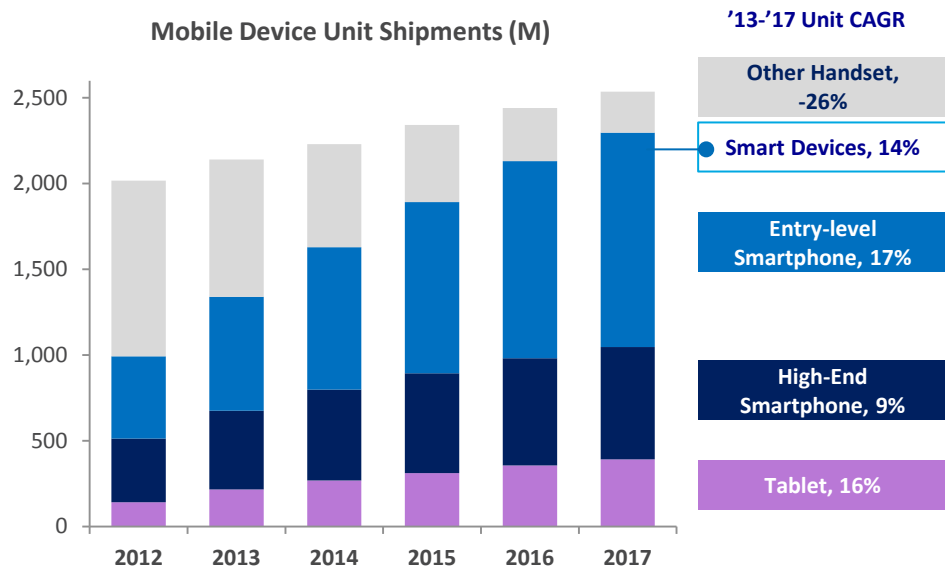
- Complex, memory-intensive use cases are proliferating: games, social and video
- Emerging personal and media consumption application driving demand for NAND flash
- Larger, ultra HD screens driving demand for LPDRAM
- More complex mobile payloads (Crypto, security, mobile IT, biometrics) in high growth markets
- All “on device” storage is replicated many times in the cloud

*Wearables*





# Wireless Market Update



## The Connected Lifestyle Driving Significant Device Growth and Memory Consumption

- Multiple devices per user
- China/Entry Smartphones and Tablets continues to drive huge growth
- Slow down in High-end Smartphones more than offset by growing functionality of entry and mid range devices
- Ultra HD, video capture & playback features increasing mobile memory demand

Source: Micron and Industry Analysts



# Micron's Mobile Focus



## Opportunities in LPDRAM and Managed NAND

- World-class LPDRAM solutions leveraging Elpida's mobile technology and competitive cost structure; driving LPDDR3 transition with leading OEMs
- Product breadth with expanding roadmap
- Breadth of Micron customers combined with new LPDRAM offering affords huge opportunities
- eMMC development - firmware and controller
- Design collaboration with tier 1 OEMs and all leading chip set vendors in the mobile space

# Micron Mobile – A Design Win Business

## Deliver the Right Solutions at the Right Time

- Quicker process node introductions and product transitions; be early to market with LPDDR4 : *“Low-power DDR4 is the right solution for the next generation of mobile computing because it promises to deliver higher performance at a much lower power per bit.” - Mario Morales, Program VP, Semiconductors and Enabling Technologies, IDC*
- Focus on internal firmware and controller development for differentiation in managed memory
- Be the best mobile solutions supplier





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INNOVATION

# Q&A



**Mark Durcan**

CEO



**Micron** –  
the world's  
best memory  
supplier

- Favorable industry structure and market conditions
- Building a strong financial model
- Driving to best-in-class operations
- Investing in innovative leading-edge technologies
- Targeting value-added market segments and structural gross margin improvements
- **Focusing on optimizing value for our shareholders and worldwide customers**





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# Q&A

